

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
50	Agree	This introduction document is very thorough, easy to read and contains so much valuable information. I feel like a parent could read through the introduction document and have a fairly strong understanding of what is contained in the standards.	K-12 Teacher	Carpenter, et.al. 1999, 2015 Heinemann - based on years of research about how children think about addition and subtraction, there are 11 distinct types of problems that can be constructed by varying the unknown. Pg.	General Support
55	Agree	The math team has done a much better job of introducing the draft than the ELA team. It reflects more of its development leading to what it was prior to the revision.	K-12 Administrator	Not actionable	General Support
56	Agree	The math team has done a much better job of introducing the draft than the ELA team. It reflects more of its development leading to what it was prior to the revision.	K-12 Administrator	Not actionable	General Support
57	Agree	The math team has done a much better job of introducing the draft than the ELA team. It reflects more of its development leading to what it was prior to the revision.	K-12 Administrator	Not actionable	General Support
67	Agree	Did not read that section but I DO have a very strong opinion of Common Core math: it stinks to high heaven. It confuses students completely and that is why so many students fail. I am an adult who is 67 years old, excelled in math throughout my years of school and I found Common Core math to be horrible! Whoever instituted this math WANTED our kids to fail. Stick to old standards and dump Common Core math as quickly as you can as it is ILLOGICAL!!	Community Member	Not actionable	Not actionable
70	Agree	The introduction is complete.	K-12 Teacher	Not actionable	General Support
71	Agree	I found this work to be an improvement over the previous document at the elementary level. I did not review more than this. I am concerned that there are still areas where the degree of difficulty or abstractness of the concept is not in line with the general range of maturation levels of the students at some grade levels in my opinion. Still it is much improved over previous guidelines and much more closely linked to grade levels above and below.	Retired Educator	Not actionable	General Support
72	Agree	I found this work to be an improvement over the previous document at the elementary level. I did not review more than this. I am concerned that there are still areas where the degree of difficulty or abstractness of the concept is not in line with the general range of maturation levels of the students at some grade levels in my opinion. Still it is much improved over previous guidelines and much more closely linked to grade levels above and below.	Retired Educator	Not actionable	General Support
76	Agree	Explained how to read the codes along the standards. It's still too complicated.	Retired Educator	Unsure of intent	Not actionable
86	Agree	I'm glad we got away from that pesky Common Core!	K-12 Teacher	Not actionable	General Support
87	Agree	The prose is coherent	Other	Not actionable	General Support

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88	Agree	The prose is coherent	Other	Not actionable	General Support
90	Agree	I think I would strongly agree if there were example models/ visuals/ or sample problems so that visual learners can fully understand what the standard encompasses by looking at those examples :).	K-12 Teacher	The introduction is not designed to specify examples, but to give an introduction to the standards.	Examples
91	Agree	I think I would strongly agree if there were example models/ visuals/ or sample problems so that visual learners can fully understand what the standard encompasses by looking at those examples :).	K-12 Teacher	The introduction is not designed to specify examples, but to give an introduction to the standards.	Examples
93	Agree	<p>The document claims that clarity is one of its main goals. However, in regards to fluency, it states that “It is critical to note that fluency is not always defined in a standard by the word ‘fluently’ being present. Sometimes fluency is implied.” This is very unclear.</p> <p>The explanations and examples section was critical to helping new teachers and coaches understand the standards.</p> <p>Tables 1 and 2 should be in grade level documents.</p>	Other	<p>Unable to locate quote in the introduction. The section on fluency describes this concept with specificity.</p> <p>Support documents requested.</p>	Support Documents
111	Agree	I did not review the Math Intro	Community Member	Not actionable	Not actionable
122	Agree	The standards were easy to understand; however, I would caution that someone who was not already familiar with the current standards may be unclear on the purpose behind the shifts of standards into the plus category. It is helpful that there is a differentiation now between standards for Algebra I and Algebra II where there is a significant concept overlap, i.e. functions in both courses do not necessarily mean that the same material is being taught.	K-12 Teacher	Not actionable	General Support
130	Agree	They are concise.	Other	Not actionable	General Support
169	Agree	They are easier to understand because you changed some vocabulary and removed all of the examples. Unfortunately, you chose not to actually revise the standards. Nice smoke and mirrors making the general public, who do not work with these everyday, think that you have actually made changes.	K-12 Teacher	Not actionable	General Non-Support
177	Agree	Since I am a teacher, I am already familiar with the layout of the current standards, and these standards have a similar layout.	K-12 Teacher	Not actionable	General Support
182	Agree	Once again, the 2016 Arizona DRAFT Mathematics Introduction appears complete and easy to understand.	K-12 Teacher	Not actionable	General Support
183	Agree	The introduction is very helpful because it explains the coding and provides a clear understanding of the math standards for each grade level. The graph shows how each standard will progress from grade level to grade level.	K-12 Teacher	Not actionable	General Support

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184	Agree	Please create curriculum that complements these standards. Without new curriculum, teachers will use the same garbage curriculum that is common core.	K-12 Parent/Guardian	Not actionable	Support Documents
186	Agree	Seems complete	K-12 Administrator	Not actionable	General Support
193	Agree	I appreciate the clarification between the 'dual' standards for Algebra 1 and Algebra 2. This is a constant dilemma that our district faces, as Galileo (ATI) looks at the whole standard, and so they	K-12 Teacher	Not actionable	General Support
239	Agree	Students need to enhance to the foundation of basic math skills before it is applied to multi step comprehensive skills.	K-12 Parent/Guardian	This is a suggestion regarding standards, not a part of the introduction.	Not actionable
243	Agree	Satisfied	K-12 Parent/Guardian	Not actionable	General Support
252	Agree	I do feel that it is easy to understand	K-12 Teacher	Not actionable	General Support
294	Agree	I understand the introduction.	K-12 Parent/Guardian	Not actionable	Not actionable
346	Agree	Terrific!	K-12 Teacher	Not actionable	General Support
349	Agree	Again, a rehash with superficial changes, of the Common Core. Why does AZ spend so much time fixing what is not broken?	K-12 Teacher	Not actionable	Not actionable
351	Agree	I am not interested in evaluating the math standards. I don't think the form should require you to do both.	K-12 Teacher	Not actionable	Not actionable
354	Agree	I think it is not as clear to the teachers as to how this has changed much.	K-12 Teacher	Not actionable	Not actionable
370	Agree	I'm not a high school teacher, but that is a very long code to describe what domain and standard is being covered.	K-12 Teacher	Not actionable	Not actionable
474	Agree	More time is needed during the work day to conceptually understand its true meaning...and possibly before the school year begins.	K-12 Teacher	Not actionable	Not actionable
475	Agree	More time is needed during the work day to conceptually understand its true meaning...and possibly before the school year begins.	K-12 Teacher	Not actionable	Not actionable
527	Agree	I think the standards are useful and manageable and an improvement to my classroom learning environment. I support the adoption of these standards	K-12 Teacher	Not actionable	General Support
589	Agree	The information in the intro is helpful, much like the ELA one, but does address specific items like fluency and money, that were questioned often.	K-12 Administrator	Not actionable	General Support
590	Agree	I support these standards	K-12 Parent/Guardian	Not actionable	General Support
591	Agree	I support them	K-12 Teacher	Not actionable	General Support
596	Agree	Introduction is easy to understand.	K-12 Teacher	Not actionable	General Support

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599	Agree	It was clear	K-12 Teacher	Not actionable	General Support
600	Agree	It was clear	K-12 Teacher	Not actionable	General Support
601	Agree	The draft is clear and easy to read.	K-12 Teacher	Not actionable	General Support
603	Agree	I understand the introduction.	K-12 Student	Not actionable	General Support
604	Agree	I understand the introduction.	K-12 Student	Not actionable	General Support
609	Agree	It is helpful to understand the changes.	K-12 Teacher	Not actionable	General Support
610	Agree	It is helpful to understand the changes.	K-12 Teacher	Not actionable	General Support
611	Agree	It is helpful to understand the changes.	K-12 Teacher	Not actionable	General Support
620	Agree	Glad money is back in first grade	K-12 Teacher	Not actionable	General Support
631	Agree	Easy to read and some parts are even color coded.	K-12 Teacher	General comment. No action required.	General support
633	Agree	The removed examples makes it easier to focus on the what the standard is actually stating instead of giving an example that we can compare our work to.	K-12 Teacher	The removed examples will be placed in a support document.	General support
636	Agree	It is sequenced well and is easy to follow.	K-12 Teacher	General comment. No action required.	General support
656	Agree	I'm not commenting on the math standards.	K-12 Teacher	General comment. No action required.	General support
658	Agree	Easy to read and not too lengthy. Clear examples.	K-12 Administrator	General comment. No action required.	General support

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673	Agree	Removing the examples from the standards allows for a more basic understanding of the standards.	K-12 Teacher	The removed examples will be placed in a support document.	General support
679	Agree	Bullet points get the message across in a clear and concise manner.	K-12 Teacher	General comment. No action required.	General support
729	Agree	easy to understand and follow	K-12 Teacher	General comment. No action required.	General
744	Agree	It is easy to understand and easy to find	K-12 Teacher	General comment. No action required.	General support
747	Agree	It is easy to understand and easy to find	K-12 Teacher	General comment. No action required.	General support
749	Agree	It is easy to understand and easy to find	K-12 Teacher	General comment. No action required.	General support
750	Agree	It is easy to understand and easy to find	K-12 Teacher	General comment. No action required.	General support
784	Agree	It is helpful	K-12 Teacher	General comment. No action required.	General support
786	Agree	It is helpful	K-12 Teacher	General comment. No action required.	General support
822	Agree	As a special education coordinator I can follow these standards a lot better than the Current standards. The format of the drafts is way easier to follow and easier to use when writing special	K-12 Administrator	General comment. No action required.	General support
823	Agree	As a special education coordinator I can follow these standards a lot better than the Current standards. The format of the drafts is way easier to follow and easier to use when writing special	K-12 Administrator	General comment. No action required.	General support
825	Agree	It is easy to understand and is easy to read.	K-12 Teacher	General comment. No action required.	General support
844	Agree	It is no different from any common core standard map.	K-12 Teacher	General comment. No action required.	General support
848	Agree	While I question the inclusion of some standards that are more appropriate for a college aged student, the majority of standards are appropriate.	K-12 Teacher	General comment. No action required.	General support
996	Agree	The Math Intro. was easy to read and understand.	K-12 Teacher	General comment. No action required.	General support

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1003	Agree	I did not see any reference to age appropriate concepts in math or ELA. The closest thing I saw was "cognitive demand". It said there were 40 people on the committee but it did not list the make up of those members. My concern is that standards are being put into lower grades because someone "feels" that would be good as opposed to a child psychologist or educator with years of experience bringing hard data to support putting standards in lower grades to provide appropriate rigor.	K-12 Teacher	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups.	Content specific
1004	Agree	I did not see any reference to age appropriate concepts in math or ELA. The closest thing I saw was "cognitive demand". It said there were 40 people on the committee but it did not list the make up of those members. My concern is that standards are being put into lower grades because	K-12 Teacher	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12	Content specific
1040	Agree	Just as in the reading, we went word by word. Very little seemed to change.	K-12 Teacher	General comment. No action required.	General support
1073	Agree	I agree with and would like the committee to approve the new modifications.	K-12 Teacher	General comment. No action required.	General support
1074	Agree	I agree with and would like the committee to approve the new modifications.	K-12 Teacher	General comment. No action required.	General support
1076	Agree	I had no problems with it.	K-12 Teacher	General comment. No action required.	General support
1085	Agree	I like that the standards are separated by course all the way through high school.	K-12 Teacher	General comment. No action required.	General support
1178	Agree	Easy to understand for me because I am a math teacher and know how to read the standards.	K-12 Teacher	General comment. No action required.	
1207	Agree	This DRAFT introduction brings forth a ease to understand the standards (and what they mean) to a non-educator, i.e., a parent or guardian. The expectations as student matriculate from grade levels is clear and present.	K-12 Teacher	General comment. No action required.	
1210	Agree	It's lengthy, but appropriate given the amount of information needed to inform.	K-12 Teacher	General comment. No action required.	
1212	Agree	The explanation of mathematical practices was necessary and helpful. The fluency progression is aligned nicely.	K-12 Teacher	General comment. No action required.	
1213	Agree	The explanation of mathematical practices was necessary and helpful. The fluency progression is aligned nicely.	K-12 Teacher	General comment. No action required.	
1214	Agree	The explanation of mathematical practices was necessary and helpful. The fluency progression is aligned nicely.	K-12 Teacher	General comment. No action required.	
1222	Agree	Varied visuals make it easy to see.	K-12 Teacher	General comment. No action required.	
1264	Agree	Useful for teacher and parents to read.	K-12 Teacher	General comment. No action required.	

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1265	Agree	It is easy to read and follow and written in easy to understand language. I love how it explains that the standards are NOT the curriculum. I also like the use of images to further explain the concepts behind the math standards, the image showing the scope and sequence of the skills across K-12, and the deconstruction of the notation to show exactly what each component of the coding means.	K-12 Teacher	General comment. No action required.	
1299	Agree	The math standards maintain the rigor of common core, and this is good. Hopefully the Governor does not screw this up.	K-12 Parent/Guardian	General comment. No action required.	
1300	Agree	The math standards maintain the rigor of common core, and this is good. Hopefully the Governor does not screw this up.	K-12 Parent/Guardian	General comment. No action required.	
1310	Agree	The introduction is clear and the graphics assist in understanding the layout of the standards in the standards document.	K-12 Teacher	General comment. No action required.	
1335	Agree	it is more clear and developed. I like the section "What they are NOT."	K-12 Teacher	General comment. No action required.	
1343	Agree	The explanation and definition of Curriculum, Instruction, and Standards is very helpful. The narratives developed about the 8 mathematical practices are helpful and clear.	K-12 Teacher	General comment. No action required.	
1394	Agree	I read the K-6 parts of the standards with particular attention to my grade level.	K-12 Teacher	General comment. No action required.	
1471	Agree	I support the 2016 AZ Draft Math standards. The progressions between grade levels are well-written and thorough. I would love to see the explanations and examples added back in, like the 2010 standards included.	K-12 Teacher	General comment. No action required.	
1477	Agree	This introduction is well laid out.	K-12 Teacher	General comment. No action required.	
1550	Agree	The comparison chart is easy to use and clearly shows prospective changes	K-12 Teacher	General comment. No action required.	
1557	Agree	The comparison chart is easy to use and clearly shows prospective changes	K-12 Teacher	General comment. No action required.	
1612	Agree	The document is clear, comprehensive and should be easily understood by educators and parents.	K-12 Teacher	General comment. No action required.	
1631	Agree	I like the portion that talks about 'what the standards are not' piece that describes the differences in standards, curriculum and instruction. The tables are a helpful tool for teachers to support the standard.	K-12 Teacher	General comment. No action required.	
1670	Agree	The 2016 math draft is easier to read.	K-12 Teacher	General comment. No action required.	
1691	Agree	The introduction gives a good explanation of what the standards are and how they are to be implemented. It does a good job of showing where the content is taught. It explains in easy language how to understand the domain and strands and how to read the standards.	K-12 Teacher	General comment. No action required.	
1716	Agree	clear and precise	K-12 Teacher	General comment. No action required.	
1719	Agree	The standards are easy to follow.	K-12 Teacher	General comment. No action required.	
1720	Agree	Easy to understand	K-12 Teacher	General comment. No action required.	
1721	Agree	It is complete and easy to understand.	K-12 Teacher	General comment. No action required.	
1722	Agree	It is complete and easy to understand.	K-12 Teacher	General comment. No action required.	
1725	Agree	While there are always issues about how different terms are intended to be interpreted, they do a good job.	K-12 Teacher	General comment. No action required.	
1698	Agree	There was a lot to read but it was easy to understand.	K-12 Teacher	General comment. No action required.	

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1829	Agree	Can follow and understand.	K-12 Teacher	General comment. No action required.	
1830	Agree	Can follow and understand.	K-12 Teacher	General comment. No action required.	
1846	Agree	They are clear to read and understand.	K-12 Teacher	General comment. No action required.	
1847	Agree	They are clear to read and understand.	K-12 Teacher	General comment. No action required.	
1862	Agree	I agree that this introduction is easy to understand.	K-12 Parent/Guardian	General comment. No action required.	
1863	Agree	The 2016 changes to the document for second grade were negligible. Wording and clarification were added. It was good to see money back in the first grade standards.	K-12 Teacher	General comment. No action required.	money
1885	Agree	I like the examples of common addition/subtraction/multiplication/division types and situations.	K-12 Teacher	General comment. No action required.	Table 1, Table 2
1887	Agree	This document is easy for parents and educators to read.	K-12 Teacher	General comment. No action required.	
1908	Agree	Yes, but lengthy	K-12 Teacher	General comment. No action required.	
1912	Agree	I think the introduction is thoughtful and well written. I think that Arizona can make the standards "their own" by defining the Mathematical Practices at each grade level better. Here is the opportunity to identify proudly what Arizona students can do at their age appropriate development.	K-12 Administrator	General comment. No action required.	Mathematical Practices
1921	Agree	The introduction was thorough and outlined the changes.	K-12 Teacher	General comment. No action required.	
1923	Agree	The summary is concise and to the point. It is organized and easy to follow.	K-12 Teacher	General comment. No action required.	
1935	Agree	Clear and concise.	K-12 Teacher	General comment. No action required.	
1943	Agree	The breakdown by Algebra 1, Geometry, Algebra 2, and plus makes it very easy to develop a curriculum for each year. The standards are easy to follow and connect to daily learning targets.	K-12 Teacher	General comment. No action required.	Algebra and Geometry
1944	Agree	The breakdown by Algebra 1, Geometry, Algebra 2, and plus makes it very easy to develop a curriculum for each year. The standards are easy to follow and connect to daily learning targets.	K-12 Teacher	General comment. No action required.	Algebra and Geometry
1988	Agree	Very to the point.	K-12 Teacher	General comment. No action required.	
2054	Agree	Easy to understand, not sure about complete.	K-12 Teacher	General comment. No action required.	
2055	Agree	Easy to understand, not sure about complete.	K-12 Teacher	General comment. No action required.	
2127	Agree	I like the increased effort to explain that standards are not the curriculum. This is good as it is commonly misunderstood. I like the push for coherency in the standards and the clarification that pedagogy is not included in the standards.	Community Member	General comment. No action required.	
2237	Agree	Gives a good overview; show vertical progression of skills; explains what a standard is and what it is not; math practices are explained; explains the numbering system for the standards	Other	General comment. No action required.	
2238	Agree	Gives a good overview; show vertical progression of skills; explains what a standard is and what it is not; math practices are explained; explains the numbering system for the standards	Other	General comment. No action required.	



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2239	Agree	Gives a good overview; show vertical progression of skills; explains what a standard is and what it is not; math practices are explained; explains the numbering system for the standards	Other	General comment. No action required.	
2240	Agree	Gives a good overview; show vertical progression of skills; explains what a standard is and what it is not; math practices are explained; explains the numbering system for the standards	Other	General comment. No action required.	
2291	Agree	Easy to read.	Community Member	General comment. No action required.	
2553	Agree	I feel the descriptions of the 2016 Standards were made with clearer than the 2010 Standards.	K-12 Teacher	General comment. No action required.	
2560	Agree	It is easy to follow.	K-12 Teacher	General comment. No action required.	
2814	Agree	I don't teach math, so I don't really have any comment on it.	K-12 Teacher	General comment. No action required.	
2873	Agree	Yes, clear and easy to understand.	K-12 Administrator	General comment. No action required.	
2961	Agree	Glad to see the statement, for kindergarten, about time being focused on critical areas. Recognizing that some areas are more important.	K-12 Teacher	General comment. No action required.	Kindergarten
3028	Agree	I found the introduction to be very thorough and a bit long to read and follow. I understand there is a lot of information to cover but the graphs were helpful and did especially like the Disciplinary Literacy in Mathematics section along with the fluency sections.	Other	General comment. No action required.	
58	Agree		K-12 Teacher		
61	Agree	Same thing as above	Community Member		
62	Agree	Same thing as above	Community Member		
66	Agree		K-12 Parent/Guardian		
68	Agree		K-12 Teacher		
69	Agree		K-12 Teacher		
84	Agree		K-12 Teacher		
73	Agree		K-12 Parent/Guardian		
74	Agree		K-12 Teacher		
78	Agree		K-12 Teacher		
95	Agree		K-12 Teacher		
100	Agree		K-12 Teacher		
114	Agree		K-12 Teacher		
120	Agree		K-12 Teacher		
126	Agree		K-12 Teacher		

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127	Agree		Higher Education		
128	Agree		Higher Education		
131	Agree		K-12 Teacher		
134	Agree		K-12 Teacher		
158	Agree		K-12 Teacher		
170	Agree		K-12 Administrator		
172	Agree		K-12 Administrator		
173	Agree		K-12 Administrator		
185	Agree		K-12 Teacher		
189	Agree		K-12 Teacher		
194	Agree		K-12 Teacher		
226	Agree		K-12 Teacher		
227	Agree		Community Member		
228	Agree		K-12 Parent/Guardian		
233	Agree		K-12 Parent/Guardian		
234	Agree		K-12 Parent/Guardian		
235	Agree		K-12 Parent/Guardian		
240	Agree		K-12 Parent/Guardian		
244	Agree		K-12 Parent/Guardian		
246	Agree		K-12 Teacher		
247	Agree		K-12 Teacher		
250	Agree		K-12 Teacher		
251	Agree		K-12 Teacher		
254	Agree		K-12 Teacher		
255	Agree		K-12 Teacher		
256	Agree		K-12 Teacher		
257	Agree		K-12 Teacher		

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258	Agree		K-12 Teacher		
259	Agree		K-12 Teacher		
260	Agree		K-12 Teacher		
261	Agree		K-12 Teacher		
262	Agree		K-12 Teacher		
263	Agree		K-12 Teacher		
264	Agree		K-12 Teacher		
265	Agree		K-12 Teacher		
266	Agree		K-12 Teacher		
267	Agree		K-12 Teacher		
268	Agree		K-12 Teacher		
269	Agree		K-12 Teacher		
270	Agree		K-12 Teacher		
271	Agree		K-12 Teacher		
272	Agree		K-12 Administrator		
273	Agree		K-12 Administrator		
274	Agree		K-12 Administrator		
275	Agree	Fine.	K-12 Teacher		
278	Agree		K-12 Teacher		
296	Agree		K-12 Teacher		
345	Agree		K-12 Parent/Guardian		
352	Agree		Other		
353	Agree		Other		
355	Agree		K-12 Administrator		
356	Agree		K-12 Teacher		
358	Agree		K-12 Teacher		
359	Agree		K-12 Teacher		
379	Agree		K-12 Teacher		
380	Agree		K-12 Teacher		
381	Agree		K-12 Teacher		
383	Agree		K-12 Parent/Guardian		
385	Agree		K-12 Teacher		
442	Agree		K-12 Teacher		

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477	Agree		Business Representative		
606	Agree		K-12 Teacher		
607	Agree		K-12 Teacher		
608	Agree		K-12 Teacher		
616	Agree		K-12 Teacher		
619	Agree		K-12 Teacher		
621	Agree		K-12 Teacher		
624	Agree		K-12 Teacher		
625	Agree		K-12 Teacher		
626	Agree		K-12 Teacher		
630	Agree		K-12 Teacher		
638	Agree		K-12 Administrator		
642	Agree		K-12 Administrator		
643	Agree		K-12 Administrator		
644	Agree		K-12 Administrator		
648	Agree		K-12 Teacher		
649	Agree		K-12 Teacher		
663	Agree		K-12 Parent/Guardian		
664	Agree		K-12 Teacher		
665	Agree		K-12 Teacher		
675	Agree		K-12 Teacher		
686	Agree		K-12 Teacher		
726	Agree		K-12 Teacher		
728	Agree		K-12 Teacher		
742	Agree		K-12 Teacher		

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820	Agree		K-12 Teacher		
828	Agree		K-12 Teacher		
829	Agree	Yes, I did!	K-12 Teacher		
830	Agree		K-12 Teacher		
831	Agree	Yes, I did!	K-12 Teacher		
842	Agree		K-12 Administrator		
856	Agree		K-12 Administrator		
857	Agree		K-12 Administrator		
859	Agree		K-12 Teacher		
995	Agree		K-12 Teacher		
997	Agree		K-12 Teacher		
999	Agree		K-12 Teacher		
1000	Agree		K-12 Teacher		
1002	Agree		K-12 Teacher		
1019	Agree		K-12 Teacher		
1020	Agree		K-12 Teacher		
1041	Agree		K-12 Teacher		
1046	Agree		K-12 Teacher		
1047	Agree		K-12 Teacher		
1048	Agree		K-12 Teacher		
1049	Agree		K-12 Teacher		
1050	Agree		K-12 Teacher		
1051	Agree		K-12 Teacher		
1053	Agree		K-12 Teacher		
1054	Agree		K-12 Teacher		
1064	Agree	this is not my area of expertise ... I choose not to weigh in but the website will not let me simply comment on ELA. Sorry.	K-12 Teacher		
1065	Agree		K-12 Teacher		
1070	Agree		K-12 Teacher		
1077	Agree		K-12 Teacher		
1078	Agree		K-12 Teacher		
1079	Agree		K-12 Teacher		
1080	Agree		K-12 Teacher		
1101	Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1175	Agree	not area of expertise	K-12 Parent/Guardian		
1206	Agree		K-12 Teacher		
1217	Agree		K-12 Teacher		
1223	Agree		K-12 Teacher		
1226	Agree	I did not look over the Math standards.	K-12 Teacher		
1228	Agree		K-12 Teacher		
1229	Agree		K-12 Teacher		
1233	Agree		Elected Official		
1234	Agree		K-12 Teacher		
1237	Agree		K-12 Teacher		
1240	Agree		K-12 Teacher		
1243	Agree		K-12 Teacher		
1246	Agree		K-12 Teacher		
1251	Agree		K-12 Parent/Guardian		
1266	Agree	See above.	K-12 Teacher		
1270	Agree		K-12 Teacher		
1275	Agree		K-12 Teacher		
1276	Agree		K-12 Teacher		
1291	Agree		K-12 Parent/Guardian		
1297	Agree	did not read - need an N/A choice here	K-12 Parent/Guardian		
1298	Agree	did not read - need an N/A choice here	K-12 Parent/Guardian		
1311	Agree		K-12 Teacher		
1370	Agree		Other		
1371	Agree		Other		
1405	Agree		K-12 Teacher		
1462	Agree		K-12 Teacher		
1515	Agree		K-12 Parent/Guardian		
1632	Agree		K-12 Teacher		
1658	Agree		K-12 Teacher		
1659	Agree		K-12 Teacher		
1662	Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1663	Agree		K-12 Teacher		
1664	Agree		K-12 Teacher		
1673	Agree	Same as above	K-12 Teacher		
1675	Agree		K-12 Teacher		
1676	Agree		K-12 Teacher		
1681	Agree		K-12 Teacher		
1688	Agree		K-12 Teacher		
1689	Agree		K-12 Teacher		
1692	Agree		K-12 Teacher		
1696	Agree		Retired Educator		
1697	Agree		Community Member		
1699	Agree		K-12 Administrator		
1705	Agree		K-12 Teacher		
1707	Agree		K-12 Teacher		
1711	Agree		K-12 Teacher		
1718	Agree		K-12 Teacher		
1724	Agree		K-12 Parent/Guardian		
1726	Agree		K-12 Teacher		
1784	Agree		K-12 Teacher		
1785	Agree		Community Member		
1796	Agree		K-12 Teacher		
1797	Agree		K-12 Teacher		
1798	Agree		K-12 Teacher		
1799	Agree		K-12 Teacher		
1800	Agree		K-12 Teacher		
1803	Agree		K-12 Teacher		
1804	Agree		K-12 Teacher		
1805	Agree		K-12 Teacher		
1806	Agree		K-12 Teacher		
1814	Agree		K-12 Teacher		
1832	Agree		K-12 Teacher		
1833	Agree		K-12 Teacher		
1834	Agree		K-12 Teacher		
1838	Agree		K-12 Administrator		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1839	Agree		K-12 Administrator		
1851	Agree		K-12 Teacher		
1873	Agree		K-12 Teacher		
1875	Agree		K-12 Teacher		
1893	Agree		K-12 Parent/Guardian		
1924	Agree		K-12 Teacher		
1956	Agree		K-12 Teacher		
1957	Agree	Brief and concise	K-12 Administrator		
1958	Agree	Brief and concise	K-12 Administrator		
1981	Agree		K-12 Teacher		
1982	Agree		K-12 Teacher		
1983	Agree		K-12 Teacher		
1985	Agree		K-12 Teacher		
1990	Agree		K-12 Teacher		
1991	Agree		K-12 Teacher		
1994	Agree		K-12 Teacher		
1995	Agree		K-12 Parent/Guardian		
1998	Agree		K-12 Teacher		
1999	Agree		K-12 Teacher		
2000	Agree		K-12 Teacher		
2001	Agree		K-12 Teacher		
2011	Agree		K-12 Teacher		
2036	Agree		K-12 Teacher		
2060	Agree		K-12 Teacher		
2070	Agree		K-12 Teacher		
2071	Agree		K-12 Teacher		
2089	Agree		K-12 Administrator		
2092	Agree		K-12 Teacher		
2094	Agree		K-12 Teacher		
2104	Agree		K-12 Teacher		
2105	Agree		K-12 Teacher		
2125	Agree		K-12 Teacher		



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2130	Agree		K-12 Teacher		
2131	Agree	Not a crucial piece to be worried about.	K-12 Teacher		
2132	Agree		K-12 Teacher		
2133	Agree		K-12 Teacher		
2289	Agree		K-12 Teacher		
2454	Agree		K-12 Teacher		
2563	Agree		Other		
2567	Agree		K-12 Teacher		
2571	Agree		K-12 Teacher		
2572	Agree		K-12 Teacher		
2577	Agree		K-12 Teacher		
2579	Agree		K-12 Teacher		
2768	Agree		K-12 Teacher		
2833	Agree		K-12 Teacher		
2843	Agree		K-12 Parent/Guardian		
2862	Agree		K-12 Parent/Guardian		
2883	Agree		Other		
2898	Agree	Again, I'm mostly concerned with 3rd grade changes.	K-12 Teacher		
2899	Agree	Again, I'm mostly concerned with 3rd grade changes.	K-12 Teacher		
2908	Agree	Again, I'm mostly concerned with 3rd grade changes.	K-12 Teacher		
2909	Agree	Again, I'm mostly concerned with 3rd grade changes.	K-12 Teacher		
2964	Agree		Elected Official		
3009	Agree		K-12 Parent/Guardian		
3017	Agree		K-12 Parent/Guardian		
48	Disagree	I don't like that the examples of how to do the math strategies have been taken out. The students and teachers need a consistent way of solving problems that is efficient and accurate. I think it's fine to have them explore different strategies, to further their understanding, but then there should be one or two examples for teachers to go by. Are we just leaving that up to the textbook people to figure out?	K-12 Teacher	Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity, National Research Council (2009) pg. 33 "There is a widespread agreement about the basic types of problem situations."	Examples
83	Disagree	The introduction is vague and it is difficult to determine the scope and sequence of what is to be taught at each grade level. This would be particularly difficult for our large ELL population who require a specific range of tasks.	K-12 Teacher	The introduction is not designed to specify tasks, but to give an introduction to the standards.	Not actionable

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
121	Disagree	G.G-CO.D Make geometric constructions. The fact that the students learn a construction is great, however as a standard it needs to be explained. Currently we enough the design and construction with a compass. The test is now electronic and if they are constructing they will be performing it on the computer. During the AIMS we just never stressed how to create the copy because it was an unmeasured standard. If this is to remain we need to clarify how it will be assessed and what is expect.	K-12 Teacher	This is a suggestion regarding a specific high school standard, not a part of the introduction.	Not actionable
140	Disagree	Did not read.	K-12 Teacher	Not actionable	Not actionable
143	Disagree	You took out key examples from the 2010 version. The standards say the same thing, but in a simpler way so that the more difficult concepts in mathematics are not shown. If those examples are not shown they won't be taught by all teachers.	K-12 Teacher	Support document is requested.	Support Documents
148	Disagree	You didn't really change the wording from the Common Core Standards or the 2010 standards. In fact most are word for word from the previous.	K-12 Teacher	Not actionable	General Non-Support
160	Disagree	KINDER K.OA.2 -Where is table 1? K.NBT.B2 should go to K.OA.A2 (where it is in the 2010 standards) because it falls under this type of operation (addition and subtraction) more than place value. It could be two separate standards in K.OA if needed -one for addition/subtraction and one that specifies story problems. It is helpful to have the Examples and Explanations column, like in the 2010 standards, so you can quickly see what specifically is needed.	K-12 Teacher	This is a suggestion regarding a specific standard, not a part of the introduction.	Not actionable
171	Disagree	It is not developmentally appropriate.	K-12 Teacher	Not actionable	General Non-Support
295	Disagree	These standards are just a renamed, regurgitation of the Common Core Standards (AZ College and Career Standards) we currently have. Go back to the drawing board, and come up with standards AZ wants!! Get rid of all the Explain your answer in K-6. Kids need to master how to do these math operations first, before you can explain it!! If you can't come up with something new go back to the standards prior to C.C.S. and tweak those standards, at least they were more Developmentally Appropriate!!!!	Retired Educator	This is a suggestion regarding standards, not a part of the introduction.	Not actionable
307	Disagree	Math program is always disappointing to me. I feel they are way low to their grades. If possible can you please revise the Math programs? I checked 3rd grade Math and I am not satisfied.	K-12 Parent/Guardian	This is a suggestion regarding curriculum, not a part of the introduction.	Not actionable
627	Disagree	The standards are very similar to the CC state standards or college and career ready standards. Both standards don't address specific objectives and criteria a student must demonstrate to master the standard.	K-12 Teacher	This is a suggestion regarding standards, not a part of the introduction.	Not actionable
628	Disagree	The standards are very similar to the CC state standards or college and career ready standards. Both standards don't address specific objectives and criteria a student must demonstrate to master the standard.	K-12 Teacher	This is a suggestion regarding standards, not a part of the introduction.	Not actionable

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
629	Disagree	The standards are very similar to the CC state standards or college and career ready standards. Both standards don't address specific objectives and criteria a student must demonstrate to master the standard.	K-12 Teacher	To support focus, a move from performance objectives to standards was necessary. Also, in order to assess the depth of understanding students have and their ability to use multiple skills to solve more cognitively demanding problems a shift from performance objectives to standards was necessary. Curriculum takes standards and task analyzes them to performance objectives, which is done at the local level.	General non-support
845	Disagree	See response to ELA Introduction. Since there isn't much original in the introduction, I don't feel the need to be original here.	K-12 Administrator	General comment. No action required.	Not actionable
881	Disagree	People outside of education have problems with reading these LONG documents.	K-12 Teacher	General comment. No action required.	Grammar/Format
1773	Disagree	While coherently written, it promotes a traditional path for acquiring math proficiency - to make the introduction complete, describe alternate paths to standard acquisition: describe an integrated approach where algebraic concepts are explicitly taught in a progression similar to the language arts standards where geometric and trigonometric concepts are addressed as extension of the algebra standards. The "Fluency Progressions Across All Grade Levels" table is very helpful!	K-12 Administrator	General comment. No action required.	
1794	Disagree	It's like reading a legal document. I think they need to be written for the students since they are what the students need to learn.	K-12 Teacher	General comment. No action required. The introduction is a technical document written for education professionals.	
1976	Disagree	Grades K-3 are critically important, because whatever is learned in these grades affects a child's success in every grade that follows. The Math Executive Summaries indicate that the review Committees considered Clarity, Cognitive Demand, and Measurability, but did NOT consider age appropriateness. This is an astonishing omission!	Community Member	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups.	
1977	Disagree	Grades K-3 are critically important, because whatever is learned in these grades affects a child's success in every grade that follows. The Math Executive Summaries indicate that the review Committees considered Clarity, Cognitive Demand, and Measurability, but did NOT consider age appropriateness. This is an astonishing omission!	Community Member	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2010	Disagree	Many of the standards have been rewritten in lengthy explanations that can and will lose the readers ability to understand the standards intent. Many standards went from one sentence to long paragraphs. This will definitely alienate many parents.	K-12 Teacher	General comment. No action required. The introduction is a technical document written for education professionals.	
2056	Disagree	It looks complete, but it is really repetitive. The opening paragraphs are unnecessary because the reader already knows math is important. Rigor is an over-used buzz word. If the concept is important, then rigor is unnecessary to prove it. Why do we have domains and clusters? We should be teaching math concepts, like adding fractions and call it that. The domains and clusters and other language exclude parents from the conversation.	K-12 Parent/Guardian	No action required. The introduction is a technical document written for education professionals.	
2135	Disagree	There need to be changes to make the curriculum more cohesive.	K-12 Teacher	No action required. Comment addresses curriculum and not standards.	
2136	Disagree	There need to be changes to make the curriculum more cohesive.	K-12 Teacher	No action required. Comment addresses curriculum and not standards.	
2137	Disagree	There need to be changes to make the curriculum more cohesive.	K-12 Teacher	No action required. Comment addresses curriculum and not standards.	
2815	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught theses same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2816	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught theses same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2817	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught theses same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment

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SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2818	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2819	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2820	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2821	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2822	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2823	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment

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SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2824	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2825	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2826	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2827	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2828	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2829	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2830	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2831	Disagree	My concern is more about the test that will be created from the "new" standards. Scores will not improve until teachers see the depth to which each standard will be tested and the format of the questions on the test. I was a 6th grade gifted teacher and taught these same standards. My grandson in Phoenix was a third-grader in a school that used Go Math. The division unit was too comprehensive. Having literal examples of the division test items on AZ Merit would have helped focus the teacher.	Retired Educator	No action required. Comment is about assessment, not standards.	Assessment
2869	Disagree	As with ELA, I would have liked a comparison draft from the beginning of the timeline to highlight what changed/stayed the same. In taking out some examples the "HOW TO" was added in other places like the MP, Tables 1 and 2. Examples of how to not what to teach. There is no mention of criteria to look at standards using developmental appropriateness as the public mentioned at meetings and in comments. The committee asked about this criteria several times as well.	K-12 Parent/Guardian	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups.	
3005	Disagree	If the Tables (1 and 2) are going to be included in the introduction, a more comprehensive version should be included, given the level of reliance on those tables assumed by the deletion of examples in the standards document. If you go back to the original source documents for Table 1 (for example) you find quite a blurring of detail in the current manifestation. I have created a better Table 1 (closer to the original), delineating the complexities and subsequent progressions of K-2 add/sub.	K-12 Teacher	Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity, National Research Council pg. 33 "There is a widespread agreement about the basic types of problem situations."  Carpenter, et.al. 1999, 2015 Heinemann - based on years of research about how children think about addition and subtraction, there are 11 distinct types of problems that can be constructed by varying the unknown. Pg. 13	Table 1, Table 2
63	Disagree		K-12 Parent/Guardian		
447	Disagree		K-12 Parent/Guardian		
498	Disagree		K-12 Teacher		
499	Disagree		K-12 Teacher		
500	Disagree		K-12 Teacher		
632	Disagree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
880	Disagree		K-12 Parent/Guardian		
1232	Disagree		K-12 Parent/Guardian		
1903	Disagree	Didn't see one. Was not sent to us.	K-12 Teacher		
2106	Disagree		K-12 Teacher		
49	Strongly Agree	It's amazing to be able to fully understand what is expected of the 6th grade students. This is amazing.	K-12 Teacher		General Support
75	Strongly Agree	The Engage NY Common Core Math was the worst decision the State of Arizona ever made in terms of a standard. Extremely confusing for students and parents alike. Hoping this new standard will go into effect by next year.	K-12 Parent/Guardian	This is a curriculum issue at the local level.	Not actionable
94	Strongly Agree	I think the progression of fluency is fabulous but still feel adding Webb questions to each of the mathematical practices will help teachers understand that these practices are aided by instruction only and cannot be based on a purchase curriculum.	K-12 Administrator	Support document that includes depth of knowledge (DOK) questions is requested.	Support Documents
112	Strongly Agree	The information was organized in a way that was easy to comprehend.	K-12 Teacher	Not actionable	General Support
124	Strongly Agree	I recommend that the Department include more information linking the continuum between the Infant and Toddler Developmental Guidelines, Arizona's Early Learning Standards, and the Mathematics and ELA Standards for K-12 (e.g., these standards build upon child development indicated in ITDG & AzELS. A child's quality early experiences with mathematics and ELA set the foundation for their capacities to successfully develop their skills throughout their formal K-12 education and beyond.)	Higher Education	Not actionable	General Support
144	Strongly Agree	The use of graphics, bullet points, and strong headings make the document easy to read and understand.	K-12 Teacher	Not actionable	General Support
145	Strongly Agree	The use of graphics, bullet points, and strong headings make the document easy to read and understand.	K-12 Teacher	Not actionable	General Support
146	Strongly Agree	I am not a Math expert, thus I did not read the Standards introduction. I trust, however, the expertise of my math colleagues, and I anticipate it is an improvement over the 2010 Math Standards.	Other	Not actionable	Not actionable
147	Strongly Agree	It is clear and effective.	K-12 Parent/Guardian	Not actionable	General Support
187	Strongly Agree	Clear as written.	K-12 Teacher	Not actionable	General Support
222	Strongly Agree	I really like the definition of Fluency. Very nice and direct. Higher thinking levels section was strong as well	K-12 Parent/Guardian	Not actionable	General Support
223	Strongly Agree	The Introduction is comprehensive and well-written. The charts that are included are helpful and easy to read.	Other	Not actionable	General Support



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
236	Strongly Agree	The mathematics standards are explicit and will help students learn to be problem solvers and critical thinkers in math. They are not merely algorithmic mathematical problems, but lots of word problems that help students use and share their strategies for solving the problems.	K-12 Teacher	Not actionable	General Support
237	Strongly Agree	The mathematics standards are explicit and will help students learn to be problem solvers and critical thinkers in math. They are not merely algorithmic mathematical problems, but lots of word problems that help students use and share their strategies for solving the problems.	K-12 Teacher	Not actionable	General Support
238	Strongly Agree	The mathematics standards are explicit and will help students learn to be problem solvers and critical thinkers in math. They are not merely algorithmic mathematical problems, but lots of word problems that help students use and share their strategies for solving the problems.	K-12 Teacher	Not actionable	General Support
279	Strongly Agree	We need more math skills	K-12 Parent/Guardian	Unsure of intent	Not actionable
280	Strongly Agree	We need more math skills	K-12 Parent/Guardian	Unsure of intent	Not actionable
281	Strongly Agree	We need more math skills	K-12 Parent/Guardian	Unsure of intent	Not actionable
290	Strongly Agree	Math is the life blood of progress.	K-12 Parent/Guardian	Unsure of intent	Not actionable
362	Strongly Agree	I believe that the language of the revised standards is clear and specific as to what the students are expected to know by the end of their learning year.	K-12 Teacher	Not actionable	General Support
367	Strongly Agree	It is clear and concise.	K-12 Teacher	Not actionable	General Support
368	Strongly Agree	It is clear and concise.	K-12 Teacher	Not actionable	General Support
369	Strongly Agree	It is clear and concise.	K-12 Teacher	Not actionable	General Support
373	Strongly Agree	The addition of "Disciplinary Literacy in Mathematics" was a great addition to help teachers see the cross curricular connection between ELA & Mathematics. We expect students to communicate intelligently and critique regardless of content area.	K-12 Administrator	Not actionable	General Support
406	Strongly Agree	The Math Standards are complete and comprehensible. I highly encourage the state to finalize these standards to help teachers know what they need to teach.	K-12 Administrator	Not actionable	General Support
496	Strongly Agree	These are much more clear than the other standards. They don't take hours and hours of deconstruction and will make it easy for teachers to understand and teach. I appreciate that the DOK levels of the standards were maintained but the language was simplified.	K-12 Teacher	Not actionable	General Support
501	Strongly Agree	Yes, it is clear and thorough. Information dense, but necessary.	K-12 Teacher	Not actionable	General Support

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
502	Strongly Agree	I think the standards are useful and manageable and an improvement to my classroom learning environment.	K-12 Teacher	Not actionable	General Support
588	Strongly Agree	Well worded and easy to understand.	K-12 Teacher	Not actionable	General Support
592	Strongly Agree	The fluency progressions was a nice addition and super helpful.	K-12 Teacher	Not actionable	General Support
594	Strongly Agree	However, I do not know how this will be connected to standards documents for each grade level and wonder if it will be a document that gets forgotten about when referencing the standards.	K-12 Parent/Guardian	Not actionable	General Support
602	Strongly Agree	This seems better overall.	K-12 Parent/Guardian	Not actionable	General Support
605	Strongly Agree	The introduction explains what will be in the document clearly and efficiently.	K-12 Teacher	Not actionable	General Support
612	Strongly Agree	However, the 2016 version should bring back the examples! The examples make it very easy to exactly what the standards mean at a glance.	K-12 Teacher	Request for example document, not part of introduction.	Examples
613	Strongly Agree	It gives a purpose and rationale.	K-12 Teacher	Not actionable	General Support
614	Strongly Agree	The Math standards are complete and easy to understand.	K-12 Teacher	Not actionable	General Support
615	Strongly Agree	The Math standards are complete and easy to understand.	K-12 Teacher	Not actionable	General Support
617	Strongly Agree	As a teacher, I appreciate the detail in the wording of the Introduction.	K-12 Teacher	Not actionable	General Support
645	Strongly Agree	I specifically looked at the first grade standards and it was very easy to follow along and understand the expectation. I like the mathematical process addition, it is important for students to be able to do some rationalizing and some self-reflecting in order to better understand why they solved the problem the way they did or even why they approached the problem in the format that they did.	K-12 Teacher	General comment. No action required.	Not actionable
657	Strongly Agree	The introduction is complete, concise, yet provides enough information to the reader on how to understand the standards document and its components.	K-12 Teacher	General comment. No action required.	General support
672	Strongly Agree	I think it is clear, concise, well-formatted, and easy to read. Please leave as is.	K-12 Teacher	General comment. No action required.	General support
674	Strongly Agree	The addition of the narratives for mathematical practices is helpful.	K-12 Teacher	General comment. No action required.	General support
681	Strongly Agree	Yes. I like the clear and concise introduction.	K-12 Teacher	General comment. No action required.	General support
682	Strongly Agree	The Math Draft introduction is well organized and is easy to understand.	K-12 Teacher	General comment. No action required.	General support

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
683	Strongly Agree	The verbage is clear and concise.	K-12 Administrator	General comment. No action required.	General support
684	Strongly Agree	The verbage is clear and concise.	K-12 Administrator	General comment. No action required.	General support
685	Strongly Agree	The verbage is clear and concise.	K-12 Administrator	General comment. No action required.	General support
802	Strongly Agree	The new standards are more measurable and clear.	K-12 Teacher	General comment. No action required.	General support
1059	Strongly Agree	I have a clear understanding of the process after reading the introduction.	K-12 Administrator	General comment. No action required.	General support
1061	Strongly Agree	The standards have been uncluttered! Much easier to read without the embedded examples.	K-12 Teacher	The removed examples will be placed in a support document.	General support
1083	Strongly Agree	I like how the balanced approach is defined. The document is also helpful in that it defines that the standards are what the students should know, not the how the material is being taught. Also, parameters for fluency are given which will be helpful for the teachers.	K-12 Teacher	General comment. No action required.	General support
1084	Strongly Agree	These drafts are easy to navigate as compared to the 2010 standards. They are shorter, yet I think they cover all the needed areas as well as the old ones (which could be 30 pages long in some cases). It is designed to be easier to navigate and use for the average classroom teacher. Well done!	K-12 Teacher	General comment. No action required.	General support
1092	Strongly Agree	After reviewing it I believe your committee did an outstanding job.	K-12 Administrator	General comment. No action required.	General support
1093	Strongly Agree	After reviewing it I believe your committee did an outstanding job.	K-12 Administrator	General comment. No action required.	General support
1102	Strongly Agree	The intro is easy to read and understand.	K-12 Administrator	General comment. No action required.	
1103	Strongly Agree	The intro is easy to read and understand.	K-12 Administrator	General comment. No action required.	
1104	Strongly Agree	Nice description, I especially like the common problems/situations section.	K-12 Teacher	General comment. No action required.	
1185	Strongly Agree	As with the ELA standards, I appreciate that the Math standards describe the difference between curriculum, standards and instruction. I also like the clarification between the mathematical content and mathematical practice standards. I liked the table that outlined the progression of mathematical fluency from grade to grade.	Community Member	General comment. No action required.	
1215	Strongly Agree	Once again, I feel that the decision makers should be the educators who solely work with the students on a daily basis and understand their level of understanding and comprehension. I agree.	K-12 Teacher	General comment. No action required.	
1216	Strongly Agree	I approve of the revisions of the standards and support what they look like now.	K-12 Teacher	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1221	Strongly Agree	The language was made more clear	K-12 Teacher	General comment. No action required.	
1247	Strongly Agree	The introduction is clear.	K-12 Teacher	General comment. No action required.	
1272	Strongly Agree	I am satisfied with the proposal.	K-12 Administrator	General comment. No action required.	
1328	Strongly Agree	I like that the introduction explains the difference between curriculum, standards, and instruction. It also does a great job defining and developing the mathematical practices.	K-12 Teacher	General comment. No action required.	
1329	Strongly Agree	Again breaking down the definitions of the standards and curriculum is helpful. The precise definitions/narratives of the mathematical practices is helpful for teachers to have at a glance for improving instruction. The definition of fluency is helpful.	K-12 Teacher	General comment. No action required.	
1330	Strongly Agree	The narratives developed for each of the eight mathematical practices are very helpful.	K-12 Teacher	General comment. No action required.	
1331	Strongly Agree	The narratives that were added to explain mathematical practice are a significant improvement. This enables a new teacher to understand the skills they need to develop in their students.	K-12 Teacher	General comment. No action required.	
1340	Strongly Agree	The explanation of the mathematical practices is clear and developed. The explanation of fluency is a needed addition.	K-12 Teacher	General comment. No action required.	
1341	Strongly Agree	The explanation of the mathematical practices is clear and developed. The explanation of fluency is a needed addition.	K-12 Teacher	General comment. No action required.	
1342	Strongly Agree	It is great that the standards, curriculum and instruction are defined and explained. Mathematical practices explanation is appreciated.	K-12 Teacher	General comment. No action required.	
1344	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1345	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1346	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1347	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1348	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1349	Strongly Agree	I especially like that fluency is addressed in general and specifically for each grade level.	K-12 Teacher	General comment. No action required.	
1354	Strongly Agree	Explained what standards are and how they are organized. Described the mathematical practices. Visual provided to show mathematical content across grade levels. The examples of problem types/situations is important to include. Clarified the meaning of fluency and defined fluency expectations across grade levels.	K-12 Teacher	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1392	Strongly Agree	I have reviewed the new standards. I like them and hope that you adopt them.	K-12 Teacher	General comment. No action required.	
1393	Strongly Agree	For anyone wondering about teaching mathematics in Arizona, the introduction is a thorough overview.	K-12 Teacher	General comment. No action required.	
1447	Strongly Agree	Thank you for keeping the progression of standards and for keeping the mathematical practices. This is going to help keep our students at a competitive level with the other states.	K-12 Teacher	General comment. No action required.	
1453	Strongly Agree	The Mathematics draft is easy to understand and gives a good sequence of skills that students need to prepare them for college and the workforce.	K-12 Parent/Guardian	General comment. No action required.	
1427	Strongly Agree	I am able to understand them.	Community Member	General comment. No action required.	
1473	Strongly Agree	The 2016 AZ DRAFT Mathematics Introduction is complete and easy to understand.	K-12 Parent/Guardian	General comment. No action required.	
1474	Strongly Agree	The introduction is clear and coherent.	K-12 Parent/Guardian	General comment. No action required.	
1482	Strongly Agree	I feel like this document is a great overview of the breadth of the standards that students are expected to achieve as they progress through our schools in AZ. It is easy to read and lays out essential information to assist us in reading the standards and using them to guide instruction.	K-12 Teacher	General comment. No action required.	
1492	Strongly Agree	Nice and clear without being too-wordy or too short.	Community Member	General comment. No action required.	
1495	Strongly Agree	The math standards are written in clear and concise language that will be easy for teachers to understand and follow.	K-12 Parent/Guardian	General comment. No action required.	
1502	Strongly Agree	The Math Intro provides the reader with a great overall BIG picture.	K-12 Teacher	General comment. No action required.	
1513	Strongly Agree	Yes, they are easy to understand	Higher Education	General comment. No action required.	
1519	Strongly Agree	This introduction lays out concepts and foundations for the math standards in a logical manner. By making it clear how students will move through our schools and become competent, proficient mathematicians and problem solvers, we ensure our population will be equipped to contribute.	Community Member	General comment. No action required.	
1529	Strongly Agree	This document gives a great overview of what the standards are and are not, how to read them, and key components of math (fluency, problem types, progressions, etc.). This will support teachers and parents to understand and use the standards at any grade level.	K-12 Teacher	General comment. No action required.	
1535	Strongly Agree	As a software engineer, the math standards are important to me for the future of my profession.	Business Representative	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1537	Strongly Agree	<p>Holds students to high standards. Students are able to think critically and develop understanding of what they do vs. memorizing processes.</p> <p>I would only add the following to K.OA.A.2: using a variety of strategies and using objects or drawings to represent the problem. Also, add to 1.OA.A.1 2) Using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	K-12 Teacher	Content specific	
1540	Strongly Agree	Fluency progression and definition, time and money progression across grade levels is an improvement.	K-12 Teacher	General comment. No action required.	
1541	Strongly Agree	As a document that helps me read the standards and understand what they are intended to accomplish, I feel like the introduction does it's job well. It presents the thinking behind the standards and helps me understand how our children will advance in math as they move through our schools.	Community Member	General comment. No action required.	
1542	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1543	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1544	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1545	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1546	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1547	Strongly Agree	The wording within the draft standards are clear, for example words like "within 10" are concise and leave no interpretation.	K-12 Teacher	General comment. No action required.	
1548	Strongly Agree	The Introduction to the Math Standards provide an important big picture -- important for a concerned citizen who is not an educator.	Community Member	General comment. No action required.	
1563	Strongly Agree	These standards are well written and will be good for the teachers to follow.	K-12 Teacher	General comment. No action required.	
1586	Strongly Agree	I appreciate the background knowledge that the introduction provides about the standards.	K-12 Teacher	General comment. No action required.	
1589	Strongly Agree	I appreciate the background knowledge that the introduction provides about the standards.	K-12 Teacher	General comment. No action required.	
1597	Strongly Agree	I think it is very informative.	K-12 Teacher	General comment. No action required.	
1649	Strongly Agree	I think that the introduction shows a parent where their student is headed.	Community Member	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1656	Strongly Agree	Very well done! Mathematical content chart is a great visual to see articulation!	K-12 Teacher	General comment. No action required.	
1669	Strongly Agree	I really like the explanations of the Mathematical Practices. Another section I appreciate as a parent trying to help my kids with their homework is the Common Problem Types/Examples. I also really like the Standards for Mathematical Content table. I do wonder if Modeling (currently only in high school) should not be brought down to 6-8th as well. When helping my boys recently I found myself emphasizing "an expression to represent" which is really a kind of model as are equations and graphs.	K-12 Parent/Guardian	General comment. No action required.	
1674	Strongly Agree	I absolutely LOVE the distinction made in the introduction between standards, curriculum and instruction. This has been a hot button issue that the public has had confusion between what the standards are and are NOT is very frustrating. The standards are not responsible for poor instructional choices made by teachers, please note that teachers are also learners and the more professional development and on the job training in regards to mathematical strategies.	K-12 Teacher	General comment. No action required.	
1683	Strongly Agree	Yes!	K-12 Teacher	General comment. No action required.	
1684	Strongly Agree	These proposed standards are acceptable as presented.	K-12 Teacher	General comment. No action required.	
1685	Strongly Agree	These proposed standards are acceptable as presented.	K-12 Teacher	General comment. No action required.	
1757	Strongly Agree	All of the standards build upon each other in a clear order that makes developmental sense.	K-12 Teacher	General comment. No action required.	
1774	Strongly Agree	straightforward & consistent with expectations of how to read a standards document	K-12 Teacher	General comment. No action required.	
1821	Strongly Agree	The addition of money is a definite benefit for third graders to know. I believe that all the other standards are also attainable and are appropriate for this grade level.	K-12 Teacher	General comment. No action required.	
1822	Strongly Agree	The addition of money is a definite benefit for third graders to know. I believe that all the other standards are also attainable and are appropriate for this grade level.	K-12 Teacher	General comment. No action required.	
1852	Strongly Agree	Just fine!	K-12 Teacher	General comment. No action required.	
1854	Strongly Agree	Yes, the introduction is complete and easy to understand.	K-12 Teacher	General comment. No action required.	
1884	Strongly Agree	I agree with the clarification of the best teaching practices.	K-12 Teacher	General comment. No action required.	
1901	Strongly Agree	It is easy to understand.	K-12 Teacher	General comment. No action required.	
1902	Strongly Agree	It is easy to understand.	K-12 Teacher	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1907	Strongly Agree	Introduction is easy to read. Well defined and text features are well appreciated.	K-12 Teacher	General comment. No action required.	
1911	Strongly Agree	The wording of the standards is clear and much more aligned to actual standards rather than instructional practice.	K-12 Administrator	General comment. No action required.	
1913	Strongly Agree	It is very easy and I appreciate the format.	K-12 Teacher	General comment. No action required.	
1914	Strongly Agree	It is very easy and I appreciate the format.	K-12 Teacher	General comment. No action required.	
1945	Strongly Agree	I feel the section on what the standards were not, was very informative for those who do not have an education background.  I think it is important to include the mathematical practices section to the introduction.	K-12 Teacher	General comment. No action required.	Mathematical Practices
1964	Strongly Agree	The Introduction clearly explains what the standards are and more importantly what they are not. The more detailed explanations of the mathematical practices were lacking in previous Arizona standards documents. It also explains how to read the nomenclature. The fluency progression is helpful. (There is a typo on this table - 3 Grade 6, it should say multiply not multiple.) The notes on literacy, technology and modeling also provide more guidance in their utilization.	K-12 Administrator	The typo was corrected in the document.	Mathematical Practices
2003	Strongly Agree	Math isn't one of those things with wiggle room for interpretation. This is pretty plain.	K-12 Parent/Guardian	General comment. No action required.	
2035	Strongly Agree	We like that the instructional time should be focused on 4 critical areas, very explicit lets parents and teachers know what is expected during math	K-12 Administrator	General comment. No action required.	
2038	Strongly Agree	I like the very clear expectations for learning.	K-12 Teacher	General comment. No action required.	
2039	Strongly Agree	It is very clear and easy to understand	K-12 Administrator	General comment. No action required.	
2064	Strongly Agree	I believe consistency in the standards is essential. These standards provide our students with the needed rigor to be successful later in life.	K-12 Administrator	General comment. No action required.	
2065	Strongly Agree	My daughter had the benefit of using the current math standards the last six years for middle school and high school. She is currently an Economics major at ASU and was very well prepared for the rigors of college and her major.	K-12 Administrator	General comment. No action required.	
2067	Strongly Agree	The standards are clarified, so they are easy to read.	K-12 Teacher	General comment. No action required.	
2091	Strongly Agree	I did easily understand this introduction. It was clear in communicating what the standards are and how they are to be interpreted. I could easily follow what it had to say.	K-12 Teacher	General comment. No action required.	
2096	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2097	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2098	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2099	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2100	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2101	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2102	Strongly Agree	The standards are clear and concise, however, the examples were very beneficial.	K-12 Teacher	General comment. No action required.	Examples
2103	Strongly Agree	Easier to read but I really like having examples in the standards. This was a way I could clarify the standard.	K-12 Teacher	General comment. No action required.	Examples
2134	Strongly Agree	After reading the Introduction, I have a clear understanding about the how to read and find the math standards for high school. It gives a detail and concise definition of the how the standards are organized.	K-12 Teacher	General comment. No action required.	
2492	Strongly Agree	These standards are laid out in a clear and concise fashion. They are easier to understand.	K-12 Teacher	General comment. No action required.	
2516	Strongly Agree	Just like the math standards	K-12 Parent/Guardian	General comment. No action required.	
2520	Strongly Agree	I can see the focus on thinking rather than just computation	Community Member	General comment. No action required.	
2525	Strongly Agree	strong focus on problem solving	Retired Educator	General comment. No action required.	
2526	Strongly Agree	strong focus on problem solving	Retired Educator	General comment. No action required.	
2551	Strongly Agree	The explanations in the introduction thoroughly explain what the standards purposes are in relationship to the standards. It is clearly written and easy to follow.	Retired Educator	General comment. No action required.	
2554	Strongly Agree	It is important for even parents to understand why teachers are teaching this new way	K-12 Parent/Guardian	General comment. No action required.	
2555	Strongly Agree	It is important for even parents to understand why teachers are teaching this new way	K-12 Parent/Guardian	General comment. No action required.	
2562	Strongly Agree	I prefer it to the 2010. I teach math, so I know the standards well and prefer the new version. It is more detailed and the expectations are more clearly defined.	K-12 Teacher	General comment. No action required.	
2698	Strongly Agree	The introduction displays a good progression of standards from K-12. In addition, it effectively makes connections between the standards, mathematical practices, and fluency	K-12 Teacher	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2767	Strongly Agree	Excellent work.	K-12 Teacher	General comment. No action required.	
2847	Strongly Agree	This maths introduction is more better than the ELA. If the introduction's purpose is to communicate the intention of the document to the reader, it might be helpful to delineate the different between arithmetic and mathematics. Generally speaking, people operationalize maths as arithmetic computation, which does play a major part, however mathematics encompasses so much more including logic, reasoning, argumentation.	K-12 Teacher	General comment. No action required.	
2848	Strongly Agree	This maths introduction is more better than the ELA. If the introduction's purpose is to communicate the intention of the document to the reader, it might be helpful to delineate the different between arithmetic and mathematics. Generally speaking, people operationalize maths as arithmetic computation, which does play a major part, however mathematics encompasses so much more including logic, reasoning, argumentation.	K-12 Teacher	General comment. No action required.	
2942	Strongly Agree	I so appreciate the comprehensive approach to the introduction. I am pleased that this introduction maintains a high level of professionalism as the standards should be written for educators, attentive to the fact that other community members should also have access to the information.	K-12 Administrator	General comment. No action required.	
2993	Strongly Agree	Good explanation of modeling in mathematics.	K-12 Administrator	General comment. No action required.	
3015	Strongly Agree	The introduction is complete and very helpful.	K-12 Parent/Guardian	General comment. No action required.	
3016	Strongly Agree	The introduction is complete and very helpful.	K-12 Parent/Guardian	General comment. No action required.	
3020	Strongly Agree	I have read this and was easily able to understand the intent	Business Representative	General comment. No action required.	
54	Strongly Agree		K-12 Teacher		
59	Strongly Agree		Other		
64	Strongly Agree		K-12 Teacher		
65	Strongly Agree		K-12 Parent/Guardian		
89	Strongly Agree		K-12 Teacher		
104	Strongly Agree		K-12 Teacher		
105	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
106	Strongly Agree		Community Member		
107	Strongly Agree		Business Representative		
108	Strongly Agree		K-12 Parent/Guardian		
110	Strongly Agree		Retired Educator		
113	Strongly Agree		K-12 Teacher		
119	Strongly Agree		Community Member		
168	Strongly Agree		K-12 Teacher		
174	Strongly Agree		Business Representative		
220	Strongly Agree		K-12 Parent/Guardian		
221	Strongly Agree		K-12 Teacher		
225	Strongly Agree		K-12 Teacher		
229	Strongly Agree	Good format.	Community Member		
230	Strongly Agree		K-12 Parent/Guardian		
249	Strongly Agree		K-12 Teacher		
253	Strongly Agree		K-12 Teacher		
284	Strongly Agree		K-12 Parent/Guardian		
285	Strongly Agree		K-12 Parent/Guardian		
288	Strongly Agree		K-12 Teacher		
289	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
291	Strongly Agree		K-12 Parent/Guardian		
292	Strongly Agree		K-12 Parent/Guardian		
293	Strongly Agree		K-12 Teacher		
357	Strongly Agree		K-12 Teacher		
366	Strongly Agree		K-12 Parent/Guardian		
372	Strongly Agree		K-12 Parent/Guardian		
448	Strongly Agree		Elected Official		
472	Strongly Agree		K-12 Parent/Guardian		
473	Strongly Agree		K-12 Teacher		
618	Strongly Agree		K-12 Teacher		
622	Strongly Agree		K-12 Teacher		
623	Strongly Agree		K-12 Teacher		
634	Strongly Agree		K-12 Teacher		
635	Strongly Agree		K-12 Teacher		
637	Strongly Agree		K-12 Teacher		
639	Strongly Agree		K-12 Teacher		
646	Strongly Agree		K-12 Teacher		
647	Strongly Agree		K-12 Teacher		
655	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
659	Strongly Agree		K-12 Teacher		
799	Strongly Agree		Other		
832	Strongly Agree	Same as ELA.	K-12 Teacher		
833	Strongly Agree	Same as ELA.	K-12 Teacher		
834	Strongly Agree	Same as ELA.	K-12 Teacher		
835	Strongly Agree	Same as ELA.	K-12 Teacher		
836	Strongly Agree	Same as ELA.	K-12 Teacher		
837	Strongly Agree	Same as ELA.	K-12 Teacher		
838	Strongly Agree	Same as ELA.	K-12 Teacher		
839	Strongly Agree	Same as ELA.	K-12 Teacher		
840	Strongly Agree	Same as ELA.	K-12 Teacher		
841	Strongly Agree	Same as ELA.	K-12 Teacher		
843	Strongly Agree		K-12 Teacher		
1005	Strongly Agree		K-12 Teacher		
1011	Strongly Agree		K-12 Teacher		
1012	Strongly Agree		K-12 Teacher		
1013	Strongly Agree		K-12 Teacher		
1021	Strongly Agree		K-12 Teacher		
1022	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1031	Strongly Agree		K-12 Teacher		
1058	Strongly Agree		K-12 Teacher		
1060	Strongly Agree		K-12 Teacher		
1069	Strongly Agree		K-12 Teacher		
1071	Strongly Agree		K-12 Parent/Guardian		
1072	Strongly Agree		K-12 Teacher		
1081	Strongly Agree		K-12 Teacher		
1094	Strongly Agree		Other		
1095	Strongly Agree		K-12 Teacher		
1098	Strongly Agree		Higher Education		
1099	Strongly Agree		K-12 Parent/Guardian		
1100	Strongly Agree		K-12 Parent/Guardian		
1208	Strongly Agree		K-12 Teacher		
1219	Strongly Agree		K-12 Teacher		
1220	Strongly Agree		K-12 Teacher		
1224	Strongly Agree		K-12 Teacher		
1235	Strongly Agree		K-12 Teacher		
1236	Strongly Agree		K-12 Teacher		
1238	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1239	Strongly Agree		K-12 Teacher		
1248	Strongly Agree		K-12 Teacher		
1249	Strongly Agree		K-12 Teacher		
1250	Strongly Agree		K-12 Teacher		
1254	Strongly Agree		K-12 Teacher		
1263	Strongly Agree		K-12 Teacher		
1273	Strongly Agree		K-12 Teacher		
1274	Strongly Agree		K-12 Teacher		
1277	Strongly Agree		Other		
1278	Strongly Agree		Other		
1279	Strongly Agree		Community Member		
1280	Strongly Agree		Community Member		
1281	Strongly Agree		Community Member		
1283	Strongly Agree		K-12 Administrator		
1284	Strongly Agree		K-12 Administrator		
1285	Strongly Agree		K-12 Administrator		
1286	Strongly Agree		K-12 Teacher		
1287	Strongly Agree		K-12 Administrator		
1289	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1290	Strongly Agree		K-12 Teacher		
1292	Strongly Agree		K-12 Teacher		
1301	Strongly Agree		K-12 Teacher		
1302	Strongly Agree		K-12 Teacher		
1303	Strongly Agree		K-12 Teacher		
1305	Strongly Agree		K-12 Teacher		
1306	Strongly Agree		Other		
1307	Strongly Agree		K-12 Teacher		
1314	Strongly Agree		K-12 Teacher		
1315	Strongly Agree		K-12 Teacher		
1316	Strongly Agree		K-12 Teacher		
1317	Strongly Agree	I have not yet read the math standards because my focus is reading and writing.	K-12 Teacher		
1318	Strongly Agree		K-12 Teacher		
1324	Strongly Agree		K-12 Teacher		
1338	Strongly Agree		K-12 Teacher		
1351	Strongly Agree		K-12 Teacher		
1352	Strongly Agree		K-12 Teacher		
1353	Strongly Agree		K-12 Teacher		
1357	Strongly Agree		K-12 Teacher		



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1358	Strongly Agree		K-12 Teacher		
1366	Strongly Agree		K-12 Teacher		
1379	Strongly Agree		K-12 Parent/Guardian		
1381	Strongly Agree		K-12 Parent/Guardian		
1382	Strongly Agree		K-12 Parent/Guardian		
1383	Strongly Agree		K-12 Parent/Guardian		
1397	Strongly Agree		K-12 Teacher		
1398	Strongly Agree		K-12 Teacher		
1418	Strongly Agree		K-12 Teacher		
1419	Strongly Agree		K-12 Teacher		
1420	Strongly Agree		K-12 Teacher		
1431	Strongly Agree		K-12 Teacher		
1443	Strongly Agree		Retired Educator		
1451	Strongly Agree		K-12 Teacher		
1452	Strongly Agree		K-12 Parent/Guardian		
1454	Strongly Agree		K-12 Parent/Guardian		
1455	Strongly Agree		K-12 Parent/Guardian		
1456	Strongly Agree		K-12 Parent/Guardian		
1458	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1459	Strongly Agree		K-12 Teacher		
1460	Strongly Agree		K-12 Parent/Guardian		
1461	Strongly Agree	Nothing to add.	K-12 Teacher		
1463	Strongly Agree		Retired Educator		
1464	Strongly Agree		Retired Educator		
1466	Strongly Agree		Retired Educator		
1478	Strongly Agree		K-12 Parent/Guardian		
1479	Strongly Agree		K-12 Parent/Guardian		
1480	Strongly Agree		K-12 Teacher		
1481	Strongly Agree		K-12 Teacher		
1476	Strongly Agree		K-12 Parent/Guardian		
1484	Strongly Agree		K-12 Teacher		
1491	Strongly Agree		K-12 Parent/Guardian		
1497	Strongly Agree		K-12 Administrator		
1498	Strongly Agree		Community Member		
1499	Strongly Agree		K-12 Teacher		
1500	Strongly Agree		K-12 Parent/Guardian		
1494	Strongly Agree		K-12 Parent/Guardian		
1503	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1505	Strongly Agree		Community Member		
1507	Strongly Agree		Community Member		
1508	Strongly Agree		Retired Educator		
1509	Strongly Agree		Community Member		
1510	Strongly Agree		Retired Educator		
1516	Strongly Agree		K-12 Teacher		
1523	Strongly Agree		Community Member		
1524	Strongly Agree		Community Member		
1525	Strongly Agree		K-12 Teacher		
1528	Strongly Agree		K-12 Parent/Guardian		
1531	Strongly Agree		K-12 Parent/Guardian		
1533	Strongly Agree		K-12 Teacher		
1534	Strongly Agree		Community Member		
1552	Strongly Agree		K-12 Parent/Guardian		
1555	Strongly Agree		Media		
1594	Strongly Agree		K-12 Teacher		
1654	Strongly Agree		K-12 Teacher		
1657	Strongly Agree		K-12 Teacher		
1666	Strongly Agree		Higher Education		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1671	Strongly Agree		K-12 Parent/Guardian		
1672	Strongly Agree		K-12 Parent/Guardian		
1678	Strongly Agree		K-12 Student		
1679	Strongly Agree		Other		
1680	Strongly Agree		K-12 Teacher		
1694	Strongly Agree		K-12 Parent/Guardian		
1695	Strongly Agree		K-12 Parent/Guardian		
1700	Strongly Agree		K-12 Teacher		
1701	Strongly Agree		K-12 Teacher		
1703	Strongly Agree		Community Member		
1712	Strongly Agree		K-12 Parent/Guardian		
1723	Strongly Agree		K-12 Teacher		
1729	Strongly Agree		K-12 Teacher		
1730	Strongly Agree		K-12 Teacher		
1733	Strongly Agree		K-12 Parent/Guardian		
1738	Strongly Agree		K-12 Teacher		
1739	Strongly Agree		K-12 Teacher		
1740	Strongly Agree		K-12 Teacher		
1741	Strongly Agree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1742	Strongly Agree		K-12 Teacher		
1743	Strongly Agree		K-12 Teacher		
1744	Strongly Agree		K-12 Parent/Guardian		
1745	Strongly Agree		K-12 Teacher		
1746	Strongly Agree		K-12 Parent/Guardian		
1747	Strongly Agree		K-12 Teacher		
1748	Strongly Agree		K-12 Teacher		
1749	Strongly Agree		K-12 Teacher		
1750	Strongly Agree		Community Member		
1751	Strongly Agree		K-12 Teacher		
1752	Strongly Agree		K-12 Teacher		
1753	Strongly Agree		K-12 Parent/Guardian		
1754	Strongly Agree		K-12 Parent/Guardian		
1755	Strongly Agree		K-12 Parent/Guardian		
1758	Strongly Agree		Retired Educator		
1759	Strongly Agree		K-12 Parent/Guardian		
1760	Strongly Agree		K-12 Student		
1761	Strongly Agree		K-12 Student		
1762	Strongly Agree		Retired Educator		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1763	Strongly Agree		K-12 Administrator		
1767	Strongly Agree		K-12 Administrator		
1769	Strongly Agree		K-12 Teacher		
1770	Strongly Agree		K-12 Parent/Guardian		
1771	Strongly Agree		K-12 Student		
1772	Strongly Agree		K-12 Student		
1777	Strongly Agree		K-12 Teacher		
1778	Strongly Agree		K-12 Teacher		
1780	Strongly Agree		K-12 Teacher		
1781	Strongly Agree		K-12 Parent/Guardian		
1782	Strongly Agree		K-12 Teacher		
1783	Strongly Agree		K-12 Parent/Guardian		
1787	Strongly Agree		Community Member		
1789	Strongly Agree		Community Member		
1791	Strongly Agree		Community Member		
1807	Strongly Agree		K-12 Teacher		
1811	Strongly Agree		K-12 Teacher		
1812	Strongly Agree		K-12 Teacher		
1813	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1817	Strongly Agree		K-12 Teacher		
1818	Strongly Agree		K-12 Teacher		
1859	Strongly Agree		K-12 Teacher		
1864	Strongly Agree		K-12 Teacher		
1866	Strongly Agree		K-12 Teacher		
1874	Strongly Agree		K-12 Teacher		
1891	Strongly Agree		K-12 Teacher		
1892	Strongly Agree		K-12 Teacher		
1906	Strongly Agree		K-12 Teacher		
1909	Strongly Agree		K-12 Teacher		
1916	Strongly Agree		K-12 Teacher		
1917	Strongly Agree		K-12 Teacher		
1936	Strongly Agree		K-12 Parent/Guardian		
1937	Strongly Agree		K-12 Parent/Guardian		
1938	Strongly Agree		K-12 Parent/Guardian		
1939	Strongly Agree		Other		
1940	Strongly Agree		Community Member		
1941	Strongly Agree		Community Member		
1942	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
1949	Strongly Agree		K-12 Teacher		
1950	Strongly Agree		K-12 Teacher		
1951	Strongly Agree		K-12 Teacher		
1952	Strongly Agree		K-12 Teacher		
1953	Strongly Agree		K-12 Teacher		
1954	Strongly Agree		K-12 Teacher		
1955	Strongly Agree		K-12 Teacher		
1979	Strongly Agree		K-12 Teacher		
1980	Strongly Agree		K-12 Teacher		
2007	Strongly Agree		K-12 Parent/Guardian		
2008	Strongly Agree		K-12 Parent/Guardian		
2009	Strongly Agree		K-12 Parent/Guardian		
2034	Strongly Agree		K-12 Teacher		
2053	Strongly Agree		K-12 Teacher		
2057	Strongly Agree		K-12 Teacher		
2066	Strongly Agree		K-12 Teacher		
2068	Strongly Agree		K-12 Teacher		
2069	Strongly Agree		K-12 Teacher		
2083	Strongly Agree	No changes needed	K-12 Teacher		



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2087	Strongly Agree		K-12 Teacher		
2088	Strongly Agree		Higher Education		
2090	Strongly Agree		K-12 Teacher		
2095	Strongly Agree		K-12 Teacher		
2107	Strongly Agree		K-12 Teacher		
2109	Strongly Agree		K-12 Teacher		
2118	Strongly Agree		K-12 Teacher		
2126	Strongly Agree		K-12 Teacher		
2223	Strongly Agree		K-12 Teacher		
2235	Strongly Agree		Community Member		
2236	Strongly Agree		Community Member		
2283	Strongly Agree		Community Member		
2284	Strongly Agree		K-12 Teacher		
2285	Strongly Agree		Community Member		
2286	Strongly Agree		K-12 Teacher		
2287	Strongly Agree		Community Member		
2288	Strongly Agree		Community Member		
2380	Strongly Agree		K-12 Parent/Guardian		
2417	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2433	Strongly Agree		Community Member		
2437	Strongly Agree		K-12 Teacher		
2440	Strongly Agree		Community Member		
2441	Strongly Agree		Higher Education		
2442	Strongly Agree		K-12 Parent/Guardian		
2443	Strongly Agree		K-12 Teacher		
2524	Strongly Agree		Community Member		
2528	Strongly Agree		K-12 Parent/Guardian		
2530	Strongly Agree		Retired Educator		
2552	Strongly Agree		Community Member		
2568	Strongly Agree	Clear and concise	K-12 Teacher		
2578	Strongly Agree		K-12 Teacher		
2580	Strongly Agree		K-12 Teacher		
2581	Strongly Agree		K-12 Teacher		
2731	Strongly Agree		K-12 Teacher		
2769	Strongly Agree		K-12 Teacher		
2812	Strongly Agree		Retired Educator		
2813	Strongly Agree		K-12 Parent/Guardian		
2835	Strongly Agree		K-12 Teacher		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2846	Strongly Agree		K-12 Teacher		
2853	Strongly Agree		K-12 Teacher		
2855	Strongly Agree		K-12 Teacher		
2901	Strongly Agree		Elected Official		
476	Strongly Disagree	Given the lack of citizenship in the English standards, I would be shocked if the math standards promoted citizenship any better. So, while my evaluation is a guess (I didn't read the standards), my comment is that citizenship should be a central focus of all curricula, not just history and U.S. government. We are clearly failing badly in our efforts to produce well-informed citizens.	Higher Education	Not actionable	Not actionable
1023	Strongly Disagree	Why would you do this to 5 year olds?	K-12 Parent/Guardian	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups.	General non-support
1027	Strongly Disagree	Again, a view of 3 grade levels is better.  What???? K.MP.1&2&3??? These don't make sense...are we forgetting "developmentally appropriate"??? The 2010 were MUCH better! Plus they had examples.	K-12 Teacher	The removed examples will be placed in a support document. The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors.	Grammar/Format Content Specific Support Documents
1989	Strongly Disagree	The facile tone of the Introduction displays glittering generalities that obscure the actual approach used in Common Core, which has an overweening emphasis on process rather than result. Children subjected to Common Core often wind up in tears because having the right answer is insufficient, and having the wrong answer with the right process is rewarded. This is in utter and deliberate disregard of the real world, where process is irrelevant and right results are the sole measure of success.	K-12 Parent/Guardian	This comment refers to instruction, not standards.	
2002	Strongly Disagree	I don't want to give any positive responses so even if they were easy to understand. I want to make sure my displeasure is understood about the new standards.	K-12 Parent/Guardian	No action due to vagueness.	
2059	Strongly Disagree	Our teachers have embraced the standards and express critical thinking and problem solving skills in their students has greatly increased.	K-12 Administrator	General comment. No action required.	
2870	Strongly Disagree	These draft standards do not represent any marked divergence from 2010 standards. It's impossible to answer this question in any other way.	Other	General comment. No action required.	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
2900	Strongly Disagree	I have personally presented pages 5 and 6 of the Standards for Mathematical Practice to many parents around our state. All parents have agreed that these 8 paragraphs are very difficult to understand and are rather convoluted. Also, there are quite a few developmentally inappropriate cognitive demands in this section for younger children (k-3) such as reasoning abstractly, algebraic thinking, critiquing peers, writing equations, and debating other students. Concrete thought is what is needed	K-12 Parent/Guardian	The standards are being technically reviewed by educational psychologists. The standards workgroups were made up of Arizona K-12 teachers, coaches, curriculum specialists, and higher education professors. To date there have been over 200 individuals comprising these workgroups. This document was written for education professionals.	
3001	Strongly Disagree	These guide lines are hard to understand and don't seam age appropriate and are not letting the teachers really teach not every did learns the same way	K-12 Parent/Guardian	Comment is about instruction, not standards.	
82	Strongly Disagree		K-12 Teacher		
640	Strongly Disagree	ditto	K-12 Teacher		
641	Strongly Disagree	I don't want to review these; not my area of expertise.	K-12 Administrator		
1259	Strongly Disagree	I don't not teach this subject.	K-12 Teacher		
1260	Strongly Disagree	I don't not teach this subject.	K-12 Teacher		
1262	Strongly Disagree	I don't not teach this subject.	K-12 Teacher		
1702	Strongly Disagree		Higher Education		
2292	Strongly Disagree		K-12 Parent/Guardian		
2582	Strongly Disagree		K-12 Parent/Guardian		
2766	Strongly Disagree	I was forced to select a value even though I did not want to answer this question. There should be a N/A option. Please see my answer to "This 2016 Arizona DRAFT of the English Language Arts Standards is an improvement compared to Arizona's current standards (2010)."	Retired Educator	General comment. No action required.	
2914	Strongly Disagree		K-12 Parent/Guardian		

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
TR		<p>Achieve: The definition of modeling in the introduction should appropriately reference the 2016 report Guidelines for Assessment &amp; Instruction in Mathematical Modeling Education (GAIMME) by the Consortium for Mathematics and its applications (COMAP). While fluency, also an aspect of rigor, is not defined in the CCSS, the ADSM introduction helpfully clarifies the meaning of fluency and clearly outlines the expectations for fluency in the introduction to the standards. Both sets of standards include similar progressions for Grade K through Grade 7 that incorporate fluency, computations, algorithms, and/or knowing from memory, but Arizona, in the introduction, helpfully provides a tabular version of these progressions. The most noteworthy difference is that the ADSM postpone adding and subtracting within 100 until Grade 3. The postponement will temporarily put students behind their counterparts in CCSS states, as by the end of Grade 4 students using the ADSM or CCSS standards will be adding or subtracting multi-digit numbers.</p> <p>The ADSM, however, apply fluency to other algebra and geometry topics:</p> <p><b>ADSM Fluencies</b>  <b>Grade 6:</b> Write, read, and evaluate algebraic expressions  <b>Grade 8:</b> Solve linear equations and inequalities in one variable.  <b>Algebra 1:</b> Perform arithmetic operations on polynomials; Interpret complicated expressions by viewing one or more of their parts as a single entity  <b>Geometry:</b> Use congruence and similarity criteria to prove relationships in geometric figures and solve problems utilizing a real-world context; use coordinates to prove simple geometric theorems algebraically; make geometric constructions  <b>Algebra 2:</b> Use the structure of an expression to identify ways to rewrite it; Build new functions from existing functions</p> <p>It is important to note here that the standards and clusters referenced in these fluencies have similar matches in the CCSS (though the CCSS do not include inequalities in Grade 8), yet neither the ADSM nor CCSS explicitly mention fluency as a goal in the clusters or the standards themselves. As such, teachers will only recognize these as fluency topics if they read the introduction to the standards. This shifted intention should be made explicit.</p>	Technical Review	<p>Change made to 8.EE.C.7 to align with the fluency progression and for consistency across grade levels. We added the word "fluently" before "solve."</p> <p>Change made to standard wording: "a real world context" when applicable.</p>	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
TR		<p>Carlson: The introduction serves its primary purpose of telling people how to read the standards and how they are structured. There is also a very well-written set of narratives describing the mathematical practice standards and excellent examples on fluency progressions, and I appreciate the emphasis on building procedural fluency from conceptual understanding. Perhaps the best part of the introduction about what the standards are intended to do compared to what they are not intended to do (such as outline specific teaching practices). The following are some specific comments related to the introduction.</p> <p>1. On Pg. 12 you have “Key Considerations for Standards Implementation”, which begins “There are important distinctions among different types of addition/subtraction and multiplication/division problems...” You then go on to have an excellent chart demonstrating how to implement a variety of problem types within a single domain to support flexible reasoning and robust understandings. However, it currently reads as if addition/subtraction and multiplication/division is the only area in which this applies and can be leveraged. I suggest a more broadly stated introduction that discusses the power of this approach throughout grade school mathematics and across topics and providing one or two additional examples from higher grade levels. Similarly, Table 3 and the text that precedes it are excellent examples of how to think about content across grades as a progression of fluency with related ideas and skills. I recommend making sure that people reading this understand that this is just one example of such a progression and is not THE fluency progression to focus on. I recommend a more broadly stated introduction and more examples to help make this point.</p> <p>2. On page 18, you write “When formulas are presented within a specific grade level, students must be provided opportunities to gain conceptual understanding. The formula should be provided (emphasis mine) and formula mastery should include conceptual understanding as well as use of the formula.” To be consistent with your goal of having conceptual understanding at the foundation of procedural skill and fluency, I argue this should say “The formula should be developed from a foundation of conceptual understanding, and formula mastery should include this understanding as well as use of the formula in specific applied problems.”</p>	Technical Review	<p>The table clearly states these are "common" situations. In support documents, we will reference the tables when operating with fractions and decimals to show their use beyond whole number operations.</p> <p>Replaced the last two sentences in "Understand and Use Formulas" to the following: “The formula should be developed from a foundation of conceptual understanding, and formula mastery should include this understanding as well as use of the formula in specific applied problems.”</p>	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/ Theme
TR		Milgram: Please see attached document as he attached red wording directly into the introduction document	Technical Review	<p>Research support and documentation not cited, therefore, further action could not be taken.</p> <p>The following research strongly supports the inclusion of Table 1 and Table 2 in the standards:</p> <p>Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity, National Research Council (2009) pg. 33 "There is a widespread agreement about the basic types of problem situations."</p> <p>Carpenter, et.al. 1999, 2015 Heinemann - based on years of research about how children think about addition and subtraction, there are 11 distinct types of problems that can be constructed by varying the unknown. Pg. 13</p> <p>Comments regarding pedagogy and instructional practices have been addressed within the individual standards in which the comments were made.</p> <p>For clarity of understanding and consistency, the fluency definition was included in the introduction. This implementation of fluency requires mathematical reasoning, appropriate application and automatic recall based on understanding.</p> <p>The use of technology research support and</p>	

## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
TR		<p>Milner: This section is very detailed, informative and clear. It conveys all information needed to read the standards and understand how they are structured.</p> <p>There are a few words that are hyphenated but are not (e.g. credit-bearing, problem-solving). On Table 3, the last row specifies what may very well be the single most important standard in all K-12 mathematics REQUIRING fluency, and yet is so badly neglected that even a majority of college students have trouble with it. They do not see the order of operations in complex expressions, and they do not know how to correctly rewrite them using properties of operations. It is very important to point this out somewhere to raise teacher and student sensitivity towards this fact.</p> <p>The same table contains twice the erroneous word "multiple" where "multiply" should be used.</p>	Technical Review	<p>The word "multiple" was changed to "multiply."</p> <p>The hyphenated words which were compound adjectives remained according to grammar rules.</p>	
TR		<p>Abercrombie: I found the introduction very helpful. In particular, the description of the Standards for Mathematical Practice were explained very well, and after reading this I understood that these standards are identical across grade levels, that these standards express habits of mind that are fostered throughout mathematics education, and that these standards differ from the content standards which vary by grade. The narratives were extremely helpful. I also appreciate the clarity with which the Mathematical Content standards were presented, particularly with the figure on page 7 of the introduction. The explanation of the coding system was very clear. I had no problem understanding how to read the standards or interpreting the structure of the standards. I was able to anticipate the presentation of the content standards and mathematical practice standards from the introduction. I did not identify any information missing from the introduction, it seemed comprehensive to me. Table 1 and 2 were helpful, and when I read this section of the introduction, I interpreted these as containing common problem types/situations, rather than a comprehensive list of all of the problem types for the various operations. However, the notes on the standards seem to imply that these tables represent all of the problem types (e.g. 1.OA.A.1). Clarification on whether or not the tables contain a comprehensive list of problem types is warranted. In addition, while I found the numbering system for the standards very clear, the vertical alignment between the standards isn't a feature of the numbering system, which may confuse some readers. Perhaps a note indicating that the numbering at the end of each standard does not imply vertical alignment from one grade to the next would be helpful to the readers of the standards.</p>	Technical Review	<p>The table clearly states these are "common" situations.</p> <p>The following research strongly supports the inclusion of Table 1 and Table 2 in the standards:</p> <p>Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity, National Research Council (2009) pg. 33 "There is a widespread agreement about the basic types of problem situations."</p> <p>Carpenter, et.al. 1999, 2015 Heinemann - based on years of research about how children think about addition and subtraction, there are 11 distinct types of problems that can be constructed by varying the unknown. Pg. 13</p>	



## Mathematics Public Feedback on the Draft Introduction

SID Number	Introduction Scale	Introduction Comment	Role	Refinement/Note	Category/Theme
TR		<p>Pope: A. The introduction does a good job clearly defining some key details and differences that should aid in reading, understanding and implementing the mathematics standards. Detailed information about the intended purpose of the standards, how they were created, and important research documents that were consulted in creating the standards is given. The introduction provides clear and detailed information about the “two types” of standards that compose the mathematics standards including definitions for each of the Mathematical Practice Standards that are consistent expectations across all grade levels. The inclusion of the Addition/Subtraction and Multiplication/Division Problem Types table seems misplaced. The text preceding the table explaining that students should have opportunities to “experience” each of these problem types and situations is a logical inclusion in the introduction but the actual tables themselves could be moved to the “Glossary” to make them more easily accessible when referencing them throughout the school year. The same comment applies to the “Fluency Progression” table. If the authors feel these tables are necessary in the introduction then perhaps they can also include them in the “Glossary” as an Appendix at the end of the standards document for quick reference/easy access.</p> <p>The detailed information about the structure of the standards on pages 8, 9, and 10 is very clear and helpful. The tables and diagrams explaining how to read the standards as well as the various components that comprise each standard are clear and easy to understand. The information in this section of the introduction for the standards is much more comprehensive and clear than the information in the same section of the introduction of the ELA standards. It would make sense to have consistent information and consistent names for the components of the standards in both sets of standards as they are structured the same. These types of inconsistencies make using the standards unnecessarily complicated.</p>	Technical Review	Table 1,2 and 3 are including in the Introduction, at the end of each grade level content in grades K-5 and in the Glossary. The tables were part of the 2010 standards and were only included at the end of the K-5 grade level standards. Because the tables were only included at the end of the standards, the tables were not see as part of the standards. Therefore, the Work Group decided to include Tables 1,2,3 in all documents, Introduction, Standards and Glossary.	
TR		<p>Pope: C. Aside from editing the information about reading the standards consistent between the Math and ELA standards it may also be helpful to somehow link this to the language used in the older/other standards that still use the Concept, Strand, PO language. This may be outside the scope of the Math and ELA Standards revision project but I know that it is something some pre-service teachers and new teachers find confusing and difficult and again makes the implementation of all of the content standards unnecessarily confusing.</p>	Technical Review	It is important to the field that we maintain as much as possible the current structure and coding of the standards. The Work Group made this a priority.	
TR		Wurman: No introduction comments found	Technical Review		
80		Yes it is simple for educators	K-12 Teacher	Unsure of intent	Not actionable
282		Can we see red line version	K-12 Administrator	Red line version became available during the public comment window	Not actionable

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595		Did not review.	K-12 Teacher	Not actionable	General Support
1045		Please stop wasting everyone's time revising standards. This is a waste of money and resources that could be spent actually solving problems in education. Hint: it's not the standards that are holding our kids back. There is way too much administration at district and state levels sapping money away from the schools, and these advisory boards and revisions are another symptom of that bloat.	K-12 Teacher	General comment. No action required.	Not actionable
1055		Didn't read it. I teach high school English, and I have no familiarity or professional interest in the math standards.	K-12 Teacher	General comment. No action required.	Not actionable
1056		Didn't read it. I teach high school English, and I have no familiarity or professional interest in the math standards.	K-12 Teacher	General comment. No action required.	Not actionable
1057		Didn't read it. I teach high school English, and I have no familiarity or professional interest in the math standards.	K-12 Teacher	General comment. No action required.	Not actionable
2998		see input earlier today	K-12 Parent/Guardian	No action required.	
60			K-12 Teacher		
85			K-12 Teacher		
81			K-12 Teacher		
92			K-12 Teacher		
115			K-12 Teacher		
116			K-12 Teacher		
129			Other		
159			K-12 Teacher		
190			K-12 Teacher		
191			K-12 Teacher		
218			K-12 Teacher		
219			K-12 Teacher		
241			Community Member		
242			Other		
276			Retired Educator		
277			Retired Educator		
283			K-12 Teacher		
286			K-12 Teacher		
287			K-12 Teacher		
308			K-12 Teacher		
341			Higher Education		

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342			Higher Education		
343			Higher Education		
344			Higher Education		
350			K-12 Teacher		
360			K-12 Teacher		
361			K-12 Teacher		
363			K-12 Teacher		
364			K-12 Teacher		
365			K-12 Teacher		
371			K-12 Student		
375			K-12 Teacher		
376			K-12 Teacher		
377			K-12 Teacher		
378			K-12 Teacher		
382			K-12 Teacher		
384			K-12 Teacher		
390			K-12 Teacher		
393			K-12 Teacher		
403			K-12 Teacher		
407		N/A	K-12 Teacher		
408			K-12 Teacher		
409			K-12 Teacher		
443			K-12 Teacher		
444			K-12 Teacher		
445			Other		
446			Other		
449			K-12 Teacher		
450			K-12 Teacher		
451			K-12 Teacher		
495			K-12 Parent/Guardian		
497			K-12 Teacher		
597			K-12 Teacher		
598			K-12 Teacher		
653			K-12 Teacher		
654			Other		

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660			K-12 Teacher		
662			K-12 Parent/Guardian		
666			Other		
667			K-12 Parent/Guardian		
668			Elected Official		
669			Elected Official		
670			Elected Official		
671			Elected Official		
678			K-12 Parent/Guardian		
680			Business Representative		
781			K-12 Teacher		
782			K-12 Teacher		
821			Other		
827			Other		
858		I did not review these standards.	K-12 Teacher		
882			Community Member		
883			K-12 Parent/Guardian		
900			Other		
915			Elected Official		
932			K-12 Administrator		
940			K-12 Administrator		
964			K-12 Teacher		
980			K-12 Administrator		
981			K-12 Administrator		
982			K-12 Teacher		
983			K-12 Teacher		
984			K-12 Teacher		
987			K-12 Teacher		

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990			K-12 Administrator		
991			K-12 Teacher		
992			K-12 Administrator		
993			Retired Educator		
994			Community Member		
998			K-12 Administrator		
1024			K-12 Teacher		
1039			K-12 Teacher		
1042			K-12 Teacher		
1052			K-12 Teacher		
1062			K-12 Teacher		
1063			Business Representative		
1082			K-12 Teacher		
1075			K-12 Teacher		
1096			K-12 Teacher		
1097			K-12 Teacher		
1209			K-12 Teacher		
1211			K-12 Teacher		
1218			K-12 Parent/Guardian		
1225			K-12 Teacher		
1227			K-12 Administrator		
1230			K-12 Teacher		
1231			K-12 Teacher		
1241			Retired Educator		
1242			Retired Educator		
1245			K-12 Teacher		
1256		I do not teach this subject.	K-12 Teacher		
1257		I do not teach this subject.	K-12 Teacher		
1261		I do not teach this subject.	K-12 Teacher		
1271			Community Member		
1282			K-12 Teacher		

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1293			K-12 Parent/Guardian		
1530			K-12 Teacher		
1554			K-12 Teacher		
1556			K-12 Teacher		
1660		i	K-12 Teacher		
1686			K-12 Teacher		
1687			K-12 Teacher		
1690			K-12 Teacher		
1704			K-12 Parent/Guardian		
1706			K-12 Parent/Guardian		
1708			K-12 Teacher		
1727			K-12 Teacher		
1728			K-12 Teacher		
1776			K-12 Teacher		
1850			K-12 Teacher		
1910			K-12 Teacher		
1918			K-12 Teacher		
1948			K-12 Teacher		
1963			K-12 Teacher		
1971		This does not apply to me.	K-12 Teacher		
1972		Not applicable	K-12 Teacher		
1973			K-12 Teacher		
1974			K-12 Teacher		
1975			K-12 Teacher		
1978			K-12 Teacher		
2012			K-12 Parent/Guardian		
2058			K-12 Teacher		
2093			K-12 Teacher		
2108			K-12 Teacher		
2115			K-12 Teacher		
2119			K-12 Teacher		
2150			K-12 Teacher		
2151			K-12 Teacher		
2165			K-12 Teacher		
2167			K-12 Teacher		

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2382			K-12 Teacher		
2383			K-12 Parent/Guardian		
2424			K-12 Teacher		
2426			K-12 Teacher		
2427			K-12 Teacher		
2493			K-12 Parent/Guardian		
2540			Community Member		
2541			Community Member		
2556			Elected Official		
2557			Community Member		
2558			Community Member		
2559			Community Member		
2573			K-12 Administrator		
2574			K-12 Teacher		
2575			K-12 Teacher		
2663			K-12 Teacher		
2701			K-12 Teacher		
2834			K-12 Teacher		
2881			K-12 Teacher		
2911			K-12 Parent/Guardian		
2916			K-12 Parent/Guardian		
2941			Other		
2962			K-12 Teacher		
2963			K-12 Teacher		
2988			K-12 Parent/Guardian		
2989			K-12 Parent/Guardian		

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2991			K-12 Parent/Guardian		