

## Grade 3 – PBA/MYA

Per the PARCC Calculator Policy, PARCC mathematics assessments for Grades 3 – 5 will not allow for calculator usage.

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.OA.1	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i>	<ul style="list-style-type: none"> <li>i) Tasks involve interpreting products in terms of equal groups, arrays, area, and/or measurement quantities. For more information see <a href="#">CCSS</a> Table 2, p. 89.</li> <li>ii) Tasks do not require students to interpret products in terms of repeated addition, skip-counting, or jumps on the number line.</li> <li>iii) The italicized example refers to describing a context. But describing a context is not the only way to meet the standard. For example, another way to meet the standard would be to identify contexts in which a total can be expressed as a specified product.</li> </ul>	4, 2
3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number shares or a number of groups can be expressed as <math>56 \div 8</math>.</i>	<ul style="list-style-type: none"> <li>i) Tasks involve interpreting quotients in terms of equal groups, arrays, area, and/or measurement quantities. For more information see <a href="#">CCSS</a> Table 2, p. 89.</li> <li>ii) Tasks do not require students to interpret quotients in terms of repeated subtraction, skip-counting, or jumps on the number line.</li> <li>iii) The italicized example refers to describing a context. But describing a context is not the only way to meet the standard. For example, another way to meet the standard would be to identify contexts in which a number of objects can be expressed as a specified quotient.</li> <li>iv) 50% of tasks require interpreting quotients as a number of objects in each share. 50% of tasks require interpreting quotients as a number of equal shares.</li> </ul>	4, 2

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.OA.3-1	Use multiplication within 100 (both factors less than or equal to 10) to solve word problems in situations involving equal groups, arrays, or area, e.g., by using drawings and equations with a symbol for the unknown number to represent the problems.	<ul style="list-style-type: none"> <li>i) All products come from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> <li>ii) 50% of tasks involve multiplying to find the total number (equal groups, arrays); 50% involve multiplying to find the area.</li> <li>iii) For more information see <a href="#">CCSS</a> Table 2, p. 89 and the Progression document for <a href="#">Operations and Algebraic Thinking</a></li> </ul>	1, 4
3.OA.3-2	Use multiplication within 100 (both factors less than or equal to 10) to solve word problems in situations involving measurement quantities other than area, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> <li>i) All products come from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> <li>ii) Tasks involve multiplying to find a total measure (other than area).</li> <li>iii) For more information see <a href="#">CCSS</a> Table 2, p. 89 and the Progression document for <a href="#">Operations and Algebraic Thinking</a></li> </ul>	1, 4
3.OA.3-3	Use division within 100 (quotients related to products having both factors less than or equal to 10) to solve word problems in situations involving equal groups, arrays, or area, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> <li>i) All quotients are related to products from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> <li>ii) A third of tasks involve dividing to find the number in each equal group or in each equal row/column of an array; a third of tasks involve dividing to find the number of equal groups or the number of equal rows/columns of an array; a third of tasks involve dividing an area by a side length to find an unknown side length.</li> <li>iii) For more information see <a href="#">CCSS</a> Table 2, p. 89 of and the Progression document for <a href="#">Operations and Algebraic Thinking</a>.</li> </ul>	1, 4
3.OA.3-4	Use division within 100 (quotients related to products having both factors less than or equal to 10) to solve problems in situations involving measurement quantities other than area, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> <li>i) All quotients are related to products from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> <li>ii) 50% of tasks involve finding the number of equal pieces; 50% involve finding the measure of each piece.</li> <li>iii) For more information see <a href="#">CCSS</a> Table 2, p. 89 and the Progression document for <a href="#">Operations and Algebraic Thinking</a></li> </ul>	1, 4

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations:</i> $8 \times ? = 48$ , $5 = \square + 3$ , $6 \times 6 = ?$	<ul style="list-style-type: none"> <li>i) Tasks do not have a context.</li> <li>ii) Only the answer is required (methods, representations, etc. are not assessed here).</li> <li>iii) All products and related quotients are from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> </ul>	-
3.OA.6	Understand division as an unknown-factor problem. <i>For example find <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</i>	<ul style="list-style-type: none"> <li>i) All products and related quotients are from the harder three quadrants of the times table (<math>a \times b</math> where <math>a &gt; 5</math> and/or <math>b &gt; 5</math>).</li> </ul>	
3.OA.7-1	Fluently multiply and divide within 25, using strategies such as the relationship between multiplication and division (e.g., knowing that $4 \times 4 = 16$ , one knows that $16 \div 4 = 4$ ) or properties of operations. By end of grade 3, know from memory all products of two one-digit numbers.	<ul style="list-style-type: none"> <li>i) Tasks do not have a context.</li> <li>ii) Only the answer is required (strategies, representations, etc. are not assessed here).</li> <li>iii) Tasks require fluent (fast and accurate) finding of products and related quotients. For example, each one-point task might require four or more computations, two or more multiplication and two or more division. However, tasks are not explicitly timed.</li> </ul>	-
3.OA.8-1	Solve two-step word problems using the four operations.. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	<ul style="list-style-type: none"> <li>i) Only the answer is required (methods, representations, etc. are not assessed here).</li> <li>ii) Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see <a href="#">CCSS</a>, Table 1, p. 88; <a href="#">CCSS</a>, Table 2, p. 89; and the Progression document for <a href="#">Operations and Algebraic Thinking</a></li> <li>iii) If scaffolded, one of the 2 parts must require 2-steps. The other part many consist of 1-step.</li> <li>iv) Conversions should be part of the 2-steps and should not be a step on its own.</li> <li>v) If the item is 2 points, the item should be a 2 point, unscaffolded item but the rubric should allow for 2-1-0 points.</li> </ul>	1, 4

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.NF.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$ .	i) Tasks do not involve the number line.	2
3.NF.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into $b$ equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line. b. Represent a fraction $a/b$ on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size $a/b$ and that its endpoint locates the number $a/b$ on the number line.	i). Fractions may include values greater than 1. ii) Fractions equal whole numbers in 20% of these tasks. iii) Tasks have “thin context” or no context. . iv) Tasks are limited to fractions with denominators 2, 3, 4, 6, and 8. (See footnote CCSSM, p 24)	5
3.NF.3a-1	Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size.	i) Tasks do not involve the number line. ii) Tasks are limited to fractions with denominators 2, 3, 4, 6, and 8. (See footnote <a href="#">CCSS</a> , p. 24) iii) The explanation aspect of 3.NF.3 is not assessed here.	5
3.NF.3a-2	Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same point on a number line.	i) Tasks are limited to fractions with denominator 2, 3, 4, 6, and 8. (See footnote <a href="#">CCSS</a> , p. 24) ii) The explanation aspect of 3.NF.3 is not assessed here.	5
3.NF.3b-1	Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. b. Recognize and generate simple equivalent fractions, (e.g., $\frac{1}{2} = \frac{2}{4}$ , $\frac{4}{6} = \frac{2}{3}$ ).	i) Tasks are limited to fractions with denominator 2, 3, 4, 6, and 8. (See footnote <a href="#">CCSS</a> , p. 24) ii) The explanation aspect of 3.NF.3 is not assessed here.	7
3.NF.3c	Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form <math>3 = \frac{3}{1}</math>; recognize that <math>\frac{6}{1} = 6</math>; locate <math>\frac{4}{4}</math> and 1 at the same point of a number line diagram.</i>	i) Tasks are limited to fractions with denominator 2, 3, 4, 6, and 8. (See footnote <a href="#">CCSS</a> , p. 24) ii) The explanation aspect of 3.NF.3 is not assessed here.	-

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.MD.1-1	Tell and write time to the nearest minute and measure time intervals in minutes.	i) Time intervals are limited to 60 minutes ii) No more than 20% of items require determining a time interval from clock readings having different hour values Acceptable intervals: ex. Start time 1:20, end time 2:10 – time interval is 50 minutes. Unacceptable intervals: ex. Start time 1:20, end time 2:30 – time interval exceeds 60 minutes.	-
3.MD.1-2	Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	i) Only the answer is required (methods, representations, etc. are not assessed here). ii) Tasks do not involve reading start/stop times from a clock nor calculating elapsed time.	1, 4, 2, 5
3.MD.2-1	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).		-
3.MD.2-2	Add, subtract, multiply or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	i) Only the answer is required (methods, representations, etc. are not assessed here).	1, 4, 2, 5
3.MD.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by $n$ unit squares is said to have an area of $n$ square units.	None	7
3.MD.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	None	7

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.C.1-1	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in 3.OA.5	i) Students need not use technical terms such as commutative, associative, distributive, or property. ii) Products and related quotients are limited to the $10 \times 10$ multiplication table.	3, 7, 6
3.C.1-2	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in 3.OA.9	i) Students need not use technical terms such as commutative, associative, distributive, or property.	3, 7, 8, 6
3.C.1-3	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in 3.MD.7	i) Pool should contain tasks with and without contexts. ii) Students need not use technical terms such as commutative, associative, distributive, or property.	3, 7, 6, 5
3.C.2	Base explanations/reasoning on the relationship between addition and subtraction or the relationship between multiplication and division. Content Scope: Knowledge and skills are articulated in 3.OA.6	i) Products and related quotients are limited to the $10 \times 10$ multiplication table.	3, 7, 6
3.C.3-1	Base arithmetic explanations/reasoning on concrete referents such as diagrams (whether provided in the prompt or constructed by the student in her response), connecting the diagrams to a written (symbolic) method. Content Scope: Knowledge and skills articulated in 3.NF.3b, 3.NF.3d.	i) Tasks may present realistic or quasi-realistic images of a contextual situation (e.g., a drawing of a partially filled graduated cylinder). However, tasks do not provide the sort of abstract drawings that help the student to represent the situation mathematically (e.g., a number line diagram or other visual fraction model). ii) Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8. (Footnote in <a href="#">CCSS</a> , p. 24) iii) For fractions equal to a whole number, values are limited to 0, 1, 2, 3, 4, and 5.	3, 5, 6
3.C.3-2	Base explanations/reasoning on concrete referents such as diagrams (whether provided in the prompt or constructed by the student in her response). Content Scope: Knowledge and skills articulated in 3.MD.5, 3.MD.6, 3.MD.7	i) Pool should contain tasks with and without contexts. ii) Tasks with a context may present realistic or quasi-realistic images of contextual situation (e.g., a drawing of a meadow). However, tasks do not provide the sort of abstract drawings that help the student to represent the situation mathematically (e.g., a tiling of the meadow).	3, 5, 6

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.C.4-1	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.OA.5	i) Students need not use technical terms such as commutative, associative, distributive, or property. ii) Products and related quotients are limited to the $10 \times 10$ multiplication table.	3, 7, 6
3.C.4-2	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.OA.6	i) Products and related quotients are limited to the $10 \times 10$ multiplication table.	3, 6
3.C.4-3	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.OA.8	i) Addition, subtraction and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see <a href="#">CCSS</a> , Table 1, p. 88; <a href="#">CCSS</a> , Table 2, p. 89; and the Progression document for Operations and Algebraic Thinking	3, 5, 6
3.C.4-4	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.NF.3b, 3.NF.3d	i) Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8. (Footnote in <a href="#">CCSS</a> , p. 24) ii) For fractions equal to a whole number, values are limited to 0, 1, 2, 3, 4, and 5.	3, 6, 5
3.C.4-5	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.MD.7	i) Pool should contain tasks with and without contexts.	3, 6, 5

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.C.4-6	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed ‘student’ reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 3.OA.9	None	3, 8, 6
3.C.5-1	Present solutions to multi-step problems in the form of valid chains of reasoning, using symbols such as equals signs appropriately (for example, rubrics award less than full credit for the presence of nonsense statements such as $1 + 4 = 5 + 7 = 12$ , even if the final answer is correct), or identify or describe errors in solutions to multi-step problems and present corrected solutions. Content Scope: Knowledge and skills articulated in 3.OA.8	i) Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see CCSS Table 1, p. 88 and Table 2, p. 89 and see the Progression document for <a href="#">Operations and Algebraic Thinking</a> )	3, 6, 2, 5
3.C.5-2	Present solutions to multi-step problems in the form of valid chains of reasoning, using symbols such as equals signs appropriately (for example, rubrics award less than full credit for the presence of nonsense statements such as $1 + 4 = 5 + 7 = 12$ , even if the final answer is correct), or identify or describe errors in solutions to multi-step problems and present corrected solutions. Content Scope: Knowledge and skills articulated in 3.MD.7b, 3.MD.7d	i) Pool should contain tasks with and without contexts.	3, 6, 2, 5
3.C.6-1	Base explanations/reasoning on a number line diagram (whether provided in the prompt or constructed by the student in her response). Content scope: Knowledge and skills articulated in 3.NF.2	None	5, 3, 6
3.C.6-2	Base explanations/reasoning on a number line diagram (whether provided in the prompt or constructed by the student in her response). Content scope: Knowledge and skills articulated in 3.MD.1	None	5, 3, 6

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Evidence Statement Key	Evidence Statement Text	Clarifications	MP
3.C.7	Distinguish correct explanation/reasoning from that which is flawed, and-if there is a flaw in the argument-present corrected reasoning. (For example, some flawed “student” reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in 2.NBT.	Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 3.	3, 6
3.D.1	Solve multi-step contextual word problems with degree of difficulty appropriate to Grade 3, requiring application of knowledge and skills articulated in the Evidence Statements on the PBA (excludes Reasoning Evidence Statements).	Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 3.	4
3.D.2	Solve multi-step contextual problems with degree of difficulty appropriate to Grade 3, requiring application of knowledge and skills articulated in 2.OA.A, 2.OA.B, 2.NBT, and/or 2.MD.B.	Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 3.	4