Grade 4 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
4.OA.1-1	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.	i) Tasks have "thin context" or no context	2, 4
4.OA.1-2	Represent verbal statements of multiplicative comparisons as multiplication equations.	i) Tasks have "thin context" or no context	2, 4
4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	i) See the Progression for Operations and Algebraic Thinking, especially page 29 and Table 3 on page 23. ii) Tasks sample equally the situations in the third row of Table 2, p. 89, in CCSS.	1, 4, 5
4.OA.3-2	Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, in which remainders must be interpreted.	i) Assessing reasonableness of answer is not assessed here. ii) Tasks involve interpreting remainders. iii) See page 30 of the Progression for Operations and Algebraic Thinking	1, 2, 7, 4
4.NBT.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.	None	7
4.NBT.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	i) Tasks assess conceptual understanding, e.g., by including a mixture (both within and between items) of expanded form, number names, and base ten numerals.	7
4.NBT.5-1	Multiply a whole number of up to four digits by a one-digit whole number using strategies based on place value and the properties of operations.	i) Tasks do not have a context. ii) The illustrate/explain aspect of 4.NBT.5 is not assessed here.	7
4.NBT.6-1	Find whole-number quotients and remainders with up to three-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	i) Tasks do not have a context. ii) The illustrate/explain aspect of 4.NBT.6 is not assessed here.	7, 8

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.NBT.Int.1	Perform computations by applying conceptual understanding of place value, rather than by applying multi-digit algorithms.	i) Tasks do not have a context. ii) See ITN Appendix F, section A, "Illustrations of Innovative Task Characteristics," subsection 4, "Integrative tasks with machine scoring of responses entered by computer interface."	1, 7
4.NF.1-2	Use the principle $\frac{a}{b}=\frac{(n\times a)}{(n\times b)}$ to recognize and generate equivalent fractions.	i) The explanation aspect of 4.NF.1 is not assessed here. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. iii) Tasks may include fractions that equal whole numbers.	7
4.NF.2-1	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or by comparing to a benchmark fraction such as 1/2. Record the results of comparisons with symbols $<, =,$ or $>$.	i) The justification aspect of 4.NF.2 is not assessed here. ii) The aspect of recognizing that fraction comparisons are valid only when the two fractions refer to the same whole, is not assessed here. iii) Tasks require the student to choose the comparison strategy autonomously depending on the given fraction. iv) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30). v) Tasks may include fractions that equal whole numbers.	6, 7
4.NF.A.Int.1	Apply conceptual understanding of fraction equivalence and ordering to solve simple word problems requiring fraction comparison.	i) Tasks have "thin context." ii) Tasks do not require adding, subtracting, multiplying, or dividing fractions. iii) Prompts do not provide visual fraction models; students may at their discretion draw visual fraction models as a strategy. iv) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	1, 4, 5
4.NF.3a	Understand a fraction a/b with $a>1$ as a sum of fractions $1/b$. a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	i) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	2, 7, 8

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.NF.3b-1	Understand a fraction a/b with $a>1$ as a sum of fractions $1/b$. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Examples: $\frac{3}{8}=\frac{1}{8}+\frac{1}{8}+\frac{1}{8}$; $\frac{3}{8}=\frac{1}{8}+\frac{2}{8}$; $2\frac{1}{8}=1+1+\frac{1}{8}=\frac{8}{8}+\frac{8}{8}+\frac{1}{8}$.	i) Only the answer is required (methods, representation, etc. are not assessed here); the justification aspect of 4.NF.3b is not assessed here. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30). iii) Tasks may include fractions that equal whole numbers.	7, 8
4.NF.3d	Understand a fraction a/b with $a>1$ as a sum of fractions $1/b$. d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	i) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30). ii) Addition and subtraction situations are limited to the dark- or medium-shaded types in Table 2, p. 9 of the Progression for Operations and Algebraic Thinking; these situations are sampled equally. iii) Prompts do not provide visual fraction models; students may at their discretion draw visual fraction models as a strategy.	1, 4, 5
4.NF.4b-1	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. b. Understand a multiple a/b as a multiple of $1/b$. For example, use a visual fraction model to express $3\times\frac{2}{5}$ as $6\times\frac{1}{5}$.	i) Tasks do not have a context. ii) Prompts do not provide visual fraction models; students may at their discretion draw visual fraction models as a strategy. iii) Tasks involve expressing a multiple of a/b as a multiple of $1/b$. iv) Results may equal fractions greater than 1 (including those equal to whole numbers). v) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	7, 5
4.NF.4b-2	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. b. Use the understanding that a multiple of a/b is a multiple of $1/b$ to multiply a fraction by a whole number. For example, use a visual fraction model to express $3\times\frac{2}{5}$ as $\frac{6}{5}$. (In general, $n\times\frac{a}{b}=\frac{n\times a}{b}$.)	i) Tasks do not have a context. ii) Prompts do not provide visual fraction models; students may at their discretion draw visual fraction models as a strategy. iii) Tasks involve expressing a multiple of *a/b* as a fraction. iv) Results may equal fractions greater than 1 (including those equal to whole numbers). v) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	7, 5

Grade 4 PBA/MYA

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.NF.4c	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat* 3/8 *of a pound of roast beef, and there will be* 5 *people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*	i) Prompts do not provide visual fraction models; students may at their discretion draw visual fraction models as a strategy. ii) Situations are limited to those in which the product is unknown (situations do not include unknown factors). iii) Situations involve a whole number of fractional quantities—not a fraction of a whole-number quantity. iv) Results may equal fractions greater than 1 (including fractions equal to whole numbers). v) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	1, 4, 5
4.C.1-1	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in 4.NBT.5	i) Students need not use technical terms such as commutative, associative, distributive, or property. ii) Tasks do not have a context.	3, 6, 7
4.C.1-2	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in 4.NBT.6	i) Students need not use technical terms such as commutative, associative, distributive, or property. ii) Tasks do not have a context.	3, 6, 7, 8
4.C.2	Base explanations/reasoning on the relationship between addition and subtraction or the relationship between multiplication and division. Content Scope: Knowledge and skills articulated in 4.NBT.6	i) Tasks do not have a context.	3, 6, 7
4.C.3	Reason about the place value system itself. Content Scope: Knowledge and skills articulated in 4.NBT.A	i) Tasks have “thin context” or no context.	3, 6, 7

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.C.4-1	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 4.NF.A	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	3, 5, 6
4.C.4-2	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 4.NF.3a, 4.NF.3b	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	3, 5, 6
4.C.4-3	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 4.NF.4a	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	3, 5, 6
4.C.4-4	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 4.NF.4b	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	2, 3, 6, 5
4.C.4-5	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 4.NF.C	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	2, 3, 5, 6
4.C.5-1	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 4.OA.3	i) Reasoning in these tasks centers on interpretation of remainders.	2, 3, 6, 1, 7, 3, 6

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.C.5-2	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 4.NF.1	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	3, 7, 6
4.C.5-3	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 4.NF.2	i) Tasks have "thin context" or no context. ii) Tasks are limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30).	3, 7, 6
4.C.5-4	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 4.NF.B	i) Grade 4 expectations in NF are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30). ii) For fractions equal to a whole number, values are limited to 0, 1, 2, 3, 4, and 5.	3, 6, 5
4.C.5-5	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 4.NF.C	Grade 4 expectations in NF are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 (CCSS footnote, p. 30). i) Tasks have "thin context" or no context. ii) iii) For fractions equal to a whole number, values are limited to 0, 1, 2, 3, 4, and 5.	3, 5, 6
4.C.6-1	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 4.OA.3	i) Tasks involve interpreting remainders.	3, 5, 6, 1, 2, 7

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.C.6-2	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 4.NF.3c	i) Tasks have "thin context" or no context. ii) Denominators are limited to grade 3 possibilities (2, 3, 4, 6, 8) so as to keep computational difficulty lower (CCSS footnote, p. 24).	2, 3, 6, 7
4.C.6-3	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 4.NF.3d, 4.NF.4c	i) Denominators are limited to grade 3 possibilities (2, 3, 4, 6, 8) so as to keep computational difficulty lower (CCSS footnote, p. 24).	3, 6, 2, 5
4.C.7-1	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 4.NF.1	None	3, 5, 6
4.C.7-2	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 4.NF.2	None	3, 5, 6
4.C.7-3	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 4.NF.3a	None	3, 5, 6
4.C.7-4	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 4.NF.4a, 4.NF.4b	None	3, 5, 6

Grade 4 PBA/MYA

Evidence Statement Key	Evidence Statement Text	Clarifications	MP
4.C.8	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.B, 3.NF, 3.MD.C	i) Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 4.	3, 6
4.D.1	Solve multi-step contextual word problems with degree of difficulty appropriate to Grade 4 requiring application of knowledge and skills articulated in the Evidence Statements on the PBA (excludes Reasoning Evidence Statements).	i) Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 4.	4
4.D.2	Solve multi-step contextual problems with degree of difficulty appropriate to Grade 4, requiring application of knowledge and skills articulated in 3.OA.A, 3.OA.8, 3.NBT, and/or 3.MD	i) Tasks may have scaffolding if necessary in order to yield a degree of difficulty appropriate to Grade 4.	4