

Answer Key - End of Grade 5, Beginning of Grade 6

Multiple Choice

- | | | | |
|-----|---|---|---|
| 1. | B | Number – A1 | word form to numeral form |
| 2. | C | Number – A8 | decimals (pictorial representation) |
| 3. | C | Number – A1 | numeral form to word form |
| 4. | B | Number – A2 | estimation |
| 5. | A | Number – A6 | division (pictorial representation) |
| 6. | A | Number – A7 | equivalent fractions |
| 7. | A | Number – A10 | ordering decimals |
| 8. | B | Number – A7 | equivalent fractions |
| 9. | B | Number – A9 | decimals to fractions |
| 10. | D | Number – A5 | multiplication using area models (arrays) |
| 11. | D | Patterns & Relations (Patterns) – B1 | pattern rule/t-table |
| 12. | A | Patterns & Relations
(Variables & Equations) – B2 | solve for unknowns |
| 13. | C | Patterns & Relations (Patterns) – B1 | pattern rule word problem |
| 14. | D | Patterns & Relations (Patterns) – B1 | pattern rules/t-table |
| 15. | D | Shape & Space (Transformations) – C8 | rotation |
| 16. | D | Shape & Space (Measurement) – C2 | referent (millimeters) |
| 17. | B | Shape & Space (Measurement) – C3 | volume (pictorial representation) |
| 18. | D | Shape & Space (Measurement) – C3 | estimation using referents |
| 19. | D | Shape & Space
(3-D Objects & 2-D Shapes) – C6 | identifying shapes (2-D) |
| 20. | C | Shape & Space
(3-D Objects & 2-D Shapes) – C5 | naming sides (2-D) |
| 21. | B | Shape & Space (Transformations) – C8 | reflection |
| 22. | D | Shape & Space (Measurement) – C1 | comparing perimeter & area |
| 23. | B | Statistics & Probability
(Chance & Uncertainty) – D3 | single outcome occurrence |
| 24. | D | Statistics & Probability
(Chance & Uncertainty) – D3 | likelihood of an occurrence |
| 25. | B | Statistics & Probability (Data Analysis) – D2 | interpreting bar graphs |

26.Aspects of the graph:

- Title
- Appropriate scale
- Space between pets
- Labels on x and y axes
- Boys/Girls labels or a legend

1	2	3	4
<ul style="list-style-type: none"> ▪ A start beyond copying that shows some understanding 	<ul style="list-style-type: none"> ▪ Successfully reached a sub goal or ▪ Used an appropriate strategy but not carried out far enough (2 aspects of the graph are missing) 	<ul style="list-style-type: none"> ▪ Appropriate strategy applied but a condition ignored (1 aspect of the graph is missing) 	<ul style="list-style-type: none"> ▪ All aspects of the graph are correct ▪ Minor copy error

27. 3 x 12, 4 x 9, 6 x 6

1	2	3	4
<ul style="list-style-type: none"> ▪ draws a rectangle without correct dimensions 	<ul style="list-style-type: none"> ▪ has 2 correct shapes without correct dimensions 	<ul style="list-style-type: none"> ▪ 3- correct combos with some correct dimensions 	<ul style="list-style-type: none"> ▪ 3- correct combos with all the correct dimensions

Basic Math Computations

$6\ 402 + 127\ 307 =$ <p style="text-align: center;">133 709</p> (Grade 4 – A3) A1	$5789 - 4654 =$ <p style="text-align: center;">1135</p> (Grade 4 – A3)	$6317 - 969$ <p style="text-align: center;">5348</p> (Grade 4 – A3)	$73.61 + 102.47 =$ <p style="text-align: center;">176.08</p> A11
$431.09 - 47.51 =$ <p style="text-align: center;">383.58</p> A11	$43 \times 9 =$ <p style="text-align: center;">387</p> A5	$42 \times 18 =$ <p style="text-align: center;">756</p> A5	$61 \times 74 =$ <p style="text-align: center;">4514</p> A5
$41.03 + 24.8 =$ <p style="text-align: center;">65.83</p> A11	$116.24 - 4.33 =$ <p style="text-align: center;">111.91</p> A11	$248 \times 4 =$ <p style="text-align: center;">992</p> A5	$98 \div 7 =$ <p style="text-align: center;">4.1</p> A6
$471 \div 9 =$ <p style="text-align: center;">52 r.3</p> A6	$602 \div 7 =$ <p style="text-align: center;">86</p> A6	Solve for a ... $17 - a = 11$ <p style="text-align: center;">a = 6</p> B2	$72 \div 5 =$ <p style="text-align: center;">14 r.2</p> A6

Scoring Rubric: Short problem-solving activities (paper and pencil) Grades 4-7

Note: this is appropriate to use as a scoring rubric for short, paper and pencil problems. Generally, for short tasks, the communication section should not receive as much weight as the others because students have limited opportunity to display skills in this area—their explanations becomes part of 'concepts'. However, if the task requires a representation (e.g., a graph, diagram) that part of the rubric should be included.

Note that in some cases, where detailed feedback is not required, the 'snapshot' alone may be sufficient.

Task: _____ GRADE _____

Strand	Key concepts required by this task (see IRP p. 16)

	Not Yet Within Expectations	Meets Minimal Expectations	Fully Meets Expectations	Exceeds Expectations
Snapshot	<i>Does not reach a reasonable solution. Does not meet basic requirements of the problem.</i>	<i>Partially solves the problem and meets some basic requirements. Solution is incomplete or flawed..</i>	<i>Solution is reasonable and complete for all parts of the task. All requirements met (may be minor flaws.)</i>	<i>Solution is well-developed and justified. Thoroughly satisfies requirements; may be insightful or innovative..</i>
Concepts - recognizes the mathematics needed; explanation shows understanding of concepts	<ul style="list-style-type: none"> Does not recognize the mathematics; shows little/no understanding (may misunderstand) 	<ul style="list-style-type: none"> Recognizes/applies some concepts needed; shows partial understanding (often vague/incomplete) 	<ul style="list-style-type: none"> Recognizes/applies concepts needed; shows understanding of relevant concepts 	<ul style="list-style-type: none"> Recognizes/applies concepts needed (may make insightful connections); shows thorough understanding
Problem-solving and reasoning Uses appropriate strategies to solve the problem Verifies and justifies that results are reasonable	<ul style="list-style-type: none"> Does not use appropriate strategies Does not verify results or solutions 	<ul style="list-style-type: none"> Uses appropriate strategies for some parts Attempts to verify or justify results or solutions but is not fully successful 	<ul style="list-style-type: none"> Uses appropriate strategies for all parts Verifies and justifies results or solutions (may be imprecise) 	<ul style="list-style-type: none"> Selects and uses highly effective, and often innovative, strategies Verifies and justifies results or solutions with precision
Procedures -shows accuracy and precision (e.g., in recording, substitutions, calculations, units, and symbols); efficient	<ul style="list-style-type: none"> Limited accuracy; major errors or omissions 	<ul style="list-style-type: none"> Follows procedures with partial accuracy; some errors or omissions 	<ul style="list-style-type: none"> Follows procedures accurately with minor errors or omissions 	<ul style="list-style-type: none"> Follows procedures accurately; very few if any minor errors/omissions; highly efficient
Communication - clear, complete, organized using words, pictures and/or numbers <i>Note: explanation is included under 'concepts'</i>	<ul style="list-style-type: none"> Unclear; confusing and/or incomplete 	<ul style="list-style-type: none"> Presents parts of the process and solution; parts are omitted or unclear. 	<ul style="list-style-type: none"> Presents process and solution clearly 	<ul style="list-style-type: none"> Presents process and solution clearly and effectively

Representation (Graphics)	<i>If required:</i>	<i>if required.</i>	<i>If required.</i>	<i>If required.</i>
If required/relevant -includes appropriate graphics; representations (e.g., charts, tables, graphs, diagrams; sketches)	<ul style="list-style-type: none"> Omits required graphics or representations and/or does not construct them appropriately; many omissions; serious flaws 	<ul style="list-style-type: none"> Constructs most required graphics and/or representations; parts are omitted or inappropriate 	<ul style="list-style-type: none"> Constructs required graphics and/or representations appropriately; may have minor errors or flaws (e.g., missing labels) 	<ul style="list-style-type: none"> Constructs required graphics and/or representations effectively and accurately

Numeracy Performance Standards, Grade 6 Prototype

Quick Scale: Numeracy Performance Standards (Grades 4-6)

Task: _____

GRADE _____

Strand	Key concepts required by this task (see IRP p. 16)

	Not Yet Within Expectations	Meets Minimal Expectations	Fully Meets Expectations	Exceeds Expectations
Snapshot	<i>Does not meet basic requirements of the task(s) without close, ongoing assistance. Usually unable to explain result.</i>	<i>Satisfies basic requirements for most parts of the task, but some important aspect is flawed or incomplete. Partial explanation.</i>	<i>Satisfies basic requirements for all parts of the task(s); reaches and explains reasonable solution(s). (may be minor flaws)</i>	<i>Thoroughly satisfies requirements of all parts of the task; solution is well-developed and justified; often insightful or innovative.</i>
Concepts and Connections - recognizes the math; applies appropriate concepts [R] [V] [CN] - explains/demonstrates relevant concepts; makes connections [R]	<ul style="list-style-type: none"> Does not recognize or apply basic concepts needed for the task(s) Shows little understanding of relevant concepts; explanations are incomplete or illogical 	<ul style="list-style-type: none"> Recognizes/applies concepts needed for most parts of the task(s) (may not be best choice) Shows partial understanding of relevant concepts; explanations may be vague; partially incomplete 	<ul style="list-style-type: none"> Recognizes/applies concepts needed for all parts of the task(s) Shows understanding of relevant concepts; explanations are logical and complete 	<ul style="list-style-type: none"> Recognizes/applies a wide range of concepts including those that have not been recently taught; may offer alternatives Shows thorough understanding; explanations are insightful;
Problem-solving and reasoning -selects and uses appropriate strategies to analyze, solve and create problems [PS] [V] [T] - flexible; perseveres - uses estimation strategies [ME] - verifies and justifies that results are reasonable [R]	<ul style="list-style-type: none"> Does not use appropriate strategies; requires extensive support No flexibility; does not persevere to a solution Does not verify or justify Unable to use estimation strategies (answers are often highly improbable) 	<ul style="list-style-type: none"> Uses some appropriate strategies if problem appears familiar; may need some help Limited flexibility and perseverance Needs help to verify or justify; inconsistent Some evidence of estimation; (some answers reasonable) 	<ul style="list-style-type: none"> Uses appropriate strategies Shows some flexibility; in most cases, perseveres to find a solution With prompting, verifies and justifies Uses estimation strategies appropriately; most answers are reasonable 	<ul style="list-style-type: none"> Uses appropriate strategies; often innovative; may add some complexity Shows flexibility; perseverance to find a solution Verifies; justifies Uses effective estimation strategies; answers are reasonable (relatively precise)
Procedures - accurate and precise in recording, substitutions, calculations, units, and symbols [C] - fluent; efficient in applying procedures including mental math [ME]	<ul style="list-style-type: none"> Follows procedures with limited accuracy; major errors or omissions Inefficient; struggles (e.g., false starts; repeats; little evidence of mental math strategies) 	<ul style="list-style-type: none"> Follows procedures with partial accuracy; some errors or omissions Inconsistent; may be fluent with some procedures but inefficient or not demonstrated in others 	<ul style="list-style-type: none"> Follows procedures accurately with some minor errors or omissions Uses most procedures and mental math strategies fluently; may be inefficient 	<ul style="list-style-type: none"> Follows procedures with accuracy and precision; very few if any minor errors/omissions Uses procedures and mental math strategies fluently and efficiently; may find own 'shortcuts'
Representation and Communication -communicates mathematically including mathematical language [C] -includes appropriate graphics; representations (e.g., charts, tables, graphs, diagrams; sketches) [V]	<ul style="list-style-type: none"> Does not explain procedures and results clearly Omits required graphics or representations and/or does not construct them appropriately; many omissions; serious flaws 	<ul style="list-style-type: none"> Partially explains procedures; results; parts are confusing, vague, incomplete Constructs most required graphics; representations; parts are seriously flawed/incomplete (e.g., scale inappropriate) 	<ul style="list-style-type: none"> Explains results and procedures clearly using some mathematical language Constructs required graphics and/or representations appropriately; may have minor errors or flaws (e.g., missing labels) 	<ul style="list-style-type: none"> Explains procedures and results precisely; uses mathematical language Constructs required graphics and/or representations effectively and accurately

Used for major tasks, projects, or ongoing observations.