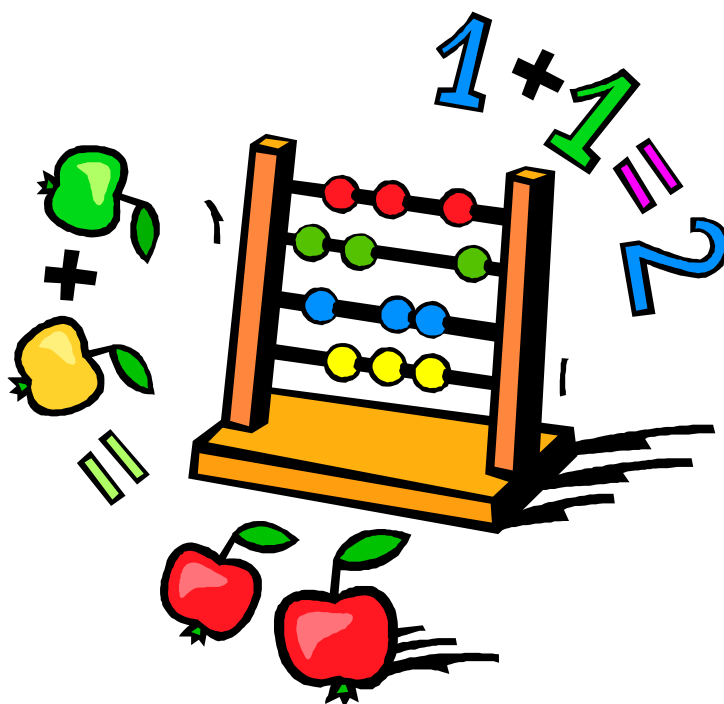


End of Grade 5 I.R.P.

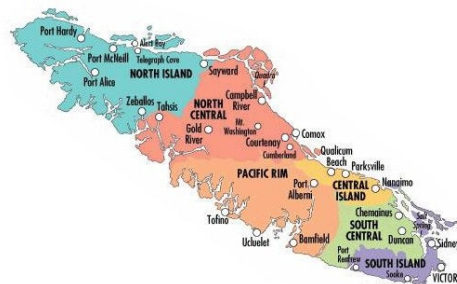
# Beginning of Grade 6

## Diagnostic Math Assessment

Last updated: December 18, 2009



WNCP  
Edition



1) What are the missing numbers in this t-table?

Input	Output
3	8
4	11
5	14
6	_____
7	_____

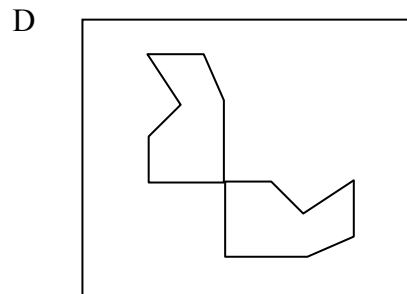
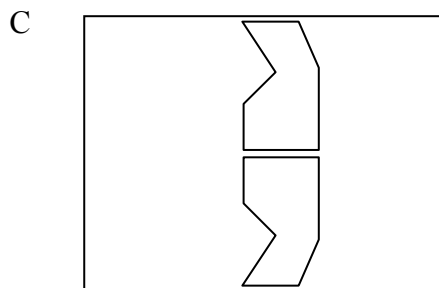
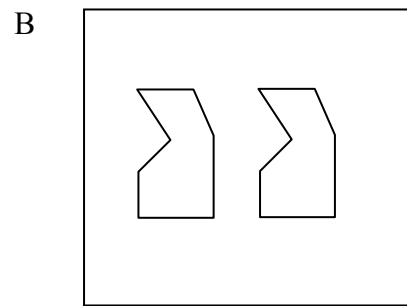
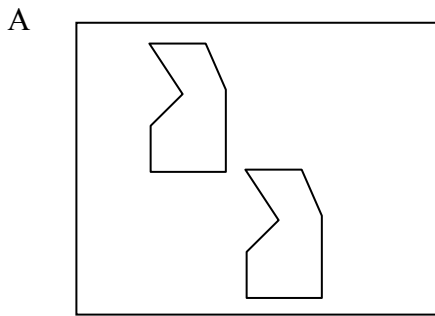
A 11, 12

B 14, 16

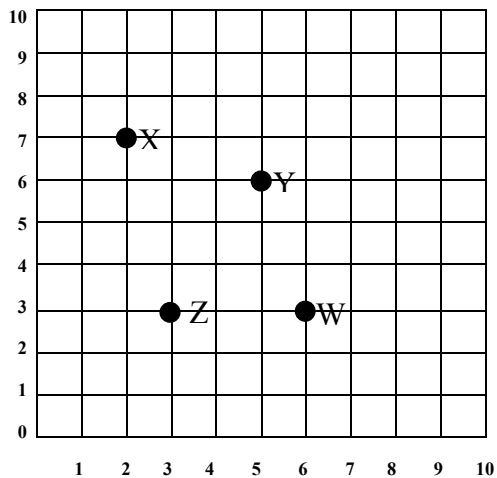
C 17, 18

D 17, 20

2) Which figure below shows a reflection?



3) Which ordered pair describes the position of point W?



A (2,7)

B (3,6)

C (6,3)

D (5,6)

4) Fun Fair tickets are 50¢ each.

For every three tickets you buy, you get a fourth ticket free.

How many tickets can you get for \$5.00?

A 10

B 11

C 13

D 15


5) What would **three hundred forty-seven thousand sixty-two** look like written as a numeral?

A 34 762


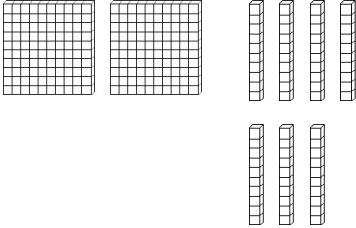
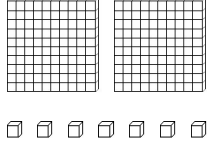
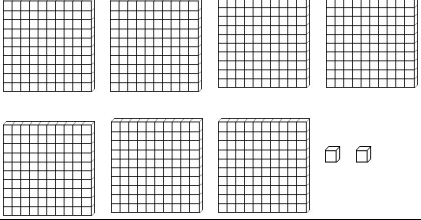
B 347 062

C 300 047 062

D 347 000 062

6) If  = 1.0

which diagram shows 2.07?

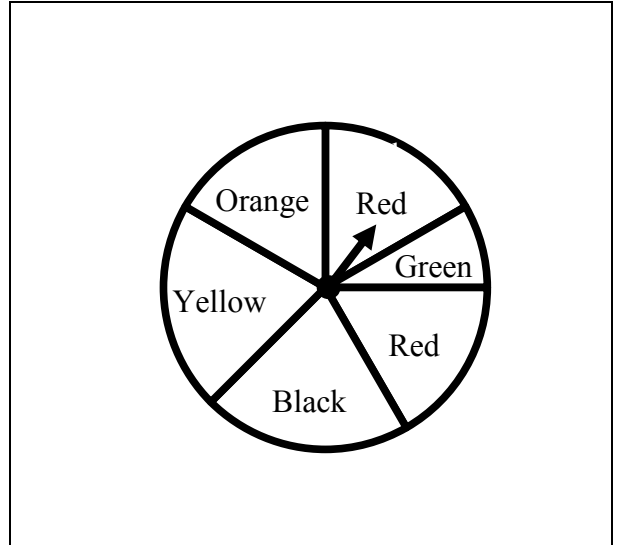
<p><b>A</b></p> 	<p><b>B</b></p> 
<p><b>C</b></p> 	<p><b>D</b></p> 

7) How would you write 89 501 in words?

- A Eighty-nine five hundred one
- B Eighty-nine thousand five hundred and one
- C Eighty-nine thousand five hundred one
- D Eighty-nine million five hundred one

8) What is the probability that the spinner will stop on blue?

- A Certain
- B Possible
- C Less possible
- D Impossible



9) There are 37 students in the class.  
Each student sold 41 boxes of nuts.

**About** how many were sold?

- A 1000
- B 1600
- C 2000
- D 2400

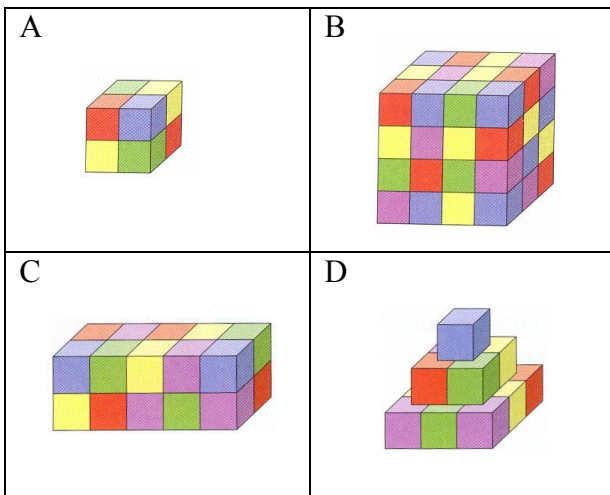
10) What is the quotient of 532 and 7?

- A 723
- B 81
- C 76
- D 72

11) Which is the best choice to measure the thickness of a penny?

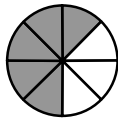
- A kilometre
- B millimetre
- C metre
- D centimetre

12) Which 3-D object has the greatest volume?

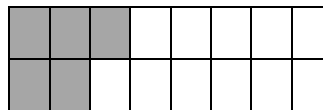


13) Which shaded area represents  $\frac{5}{8}$ ?

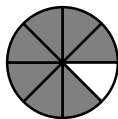
A



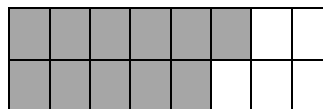
B



C







D



14) Which set has the numbers in order from least to greatest?

- A (0.36, 4.08, 6.842, 24.371, 143.201)
- B (4.08, 0.36, 6.842, 24.371, 1432.01)
- C (1432.01, 24.371, 0.36, 4.08, 6.842)
- D (1432.01, 24.371, 6.842, 4.08, 0.36)

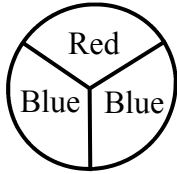
15) Which fraction below is equivalent to  $\frac{2}{3}$ ?

- A  $\frac{9}{12}$  
- B  $\frac{4}{6}$  
- C  $\frac{2}{4}$  
- D  $\frac{2}{5}$  

16) What is 0.25 in fractional form?

- A  $\frac{25}{10}$
- B  $\frac{25}{100}$
- C  $\frac{1}{25}$
- D  $\frac{25}{1000}$

17) What is the probability of spinning blue?



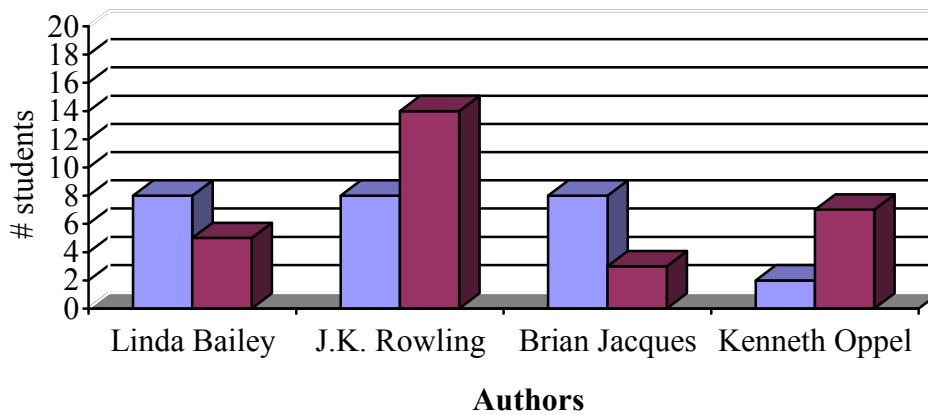
- A Impossible
- B Less possible
- C Possible
- D More possible

18) How many millilitres is equal to  $6450 \text{ cm}^3$ ?

- A 6.450 ml
- B 64.50 ml
- C 645.0 ml
- D 6450 ml



19) What is the best title of this graph?



- A Favourite Book
- B Favourite Author
- C J.K. Rowling Books
- D Books Read Each Month?

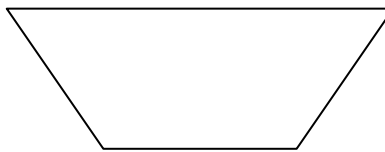
20) What is the pattern rule?

Input	Output
46	23
50	25
18	9
94	47

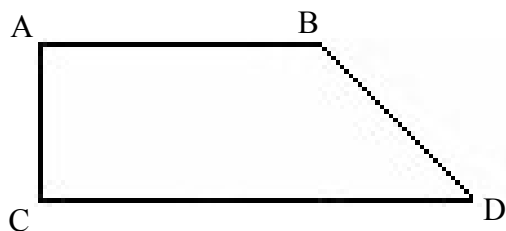
- A Add 2
- B Subtract 2
- C Multiply by 2
- D Divide by 2

21) Name the quadrilateral.

- A parallelogram
- B rectangle
- C rhombus
- D trapezoid



22)

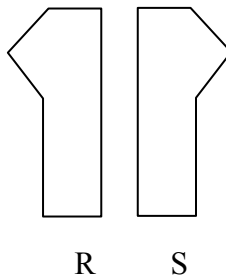


Side AB and side CD are

- A vertical
- B perpendicular
- C parallel
- D intersecting

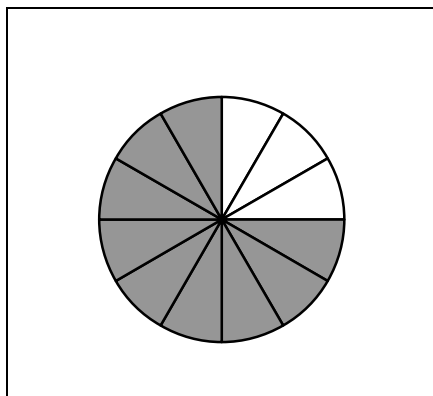
23) The shape moves from R to S. This movement in space is a...?

- A rotation
- B reflection
- C translation
- D tessellation



24) Which fraction is equivalent to the **shaded** area?

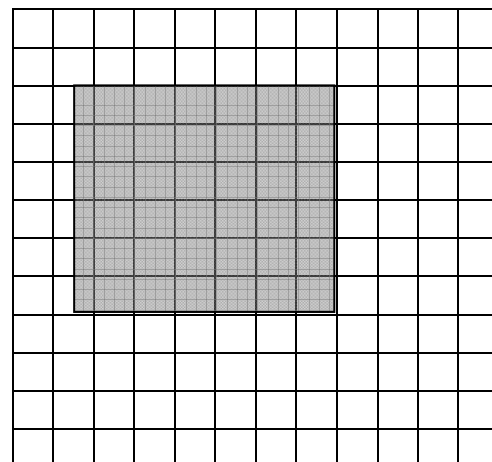
- A  $\frac{1}{4}$
- B  $\frac{3}{9}$
- C  $\frac{2}{3}$
- D  $\frac{3}{4}$



25) What is the best estimate of the shaded area below?

- A  $30 \text{ cm}^2$
- B  $40 \text{ cm}^2$
- C  $50 \text{ cm}^2$
- D  $60 \text{ cm}^2$

■ =  $1 \text{ cm}^2$



■ **End of Multiple Choice Questions** ■

## **Problem Solving - Written Response**

26) There are hard cover books and paperback books for sale.

Melanie bought 5 books.

List all the possible combinations of books that she could buy.

27) Construct a double bar graph to represent the data below.

**Include a title, labels, legend and scale.**

School Favourite Pet Survey

● = 5      ○ = 5                      ● Boys      ○ Girls

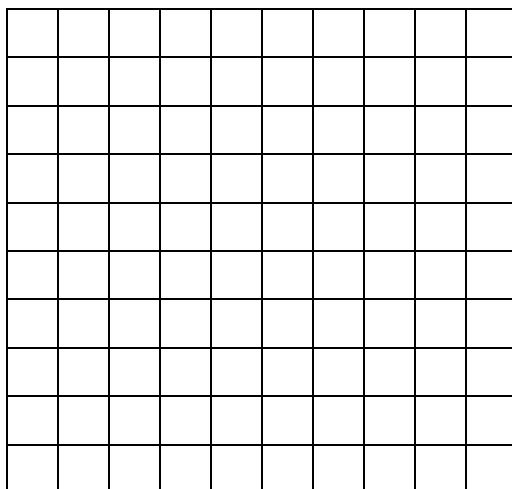
Cat = ● ● ● ● ●  
○ ○ ○ ○ ○ ○ ○

Dog = ● ● ● ● ● ● ● ● ●  
○ ○ ○ ○ ○

Snake = ● ● ●  
○

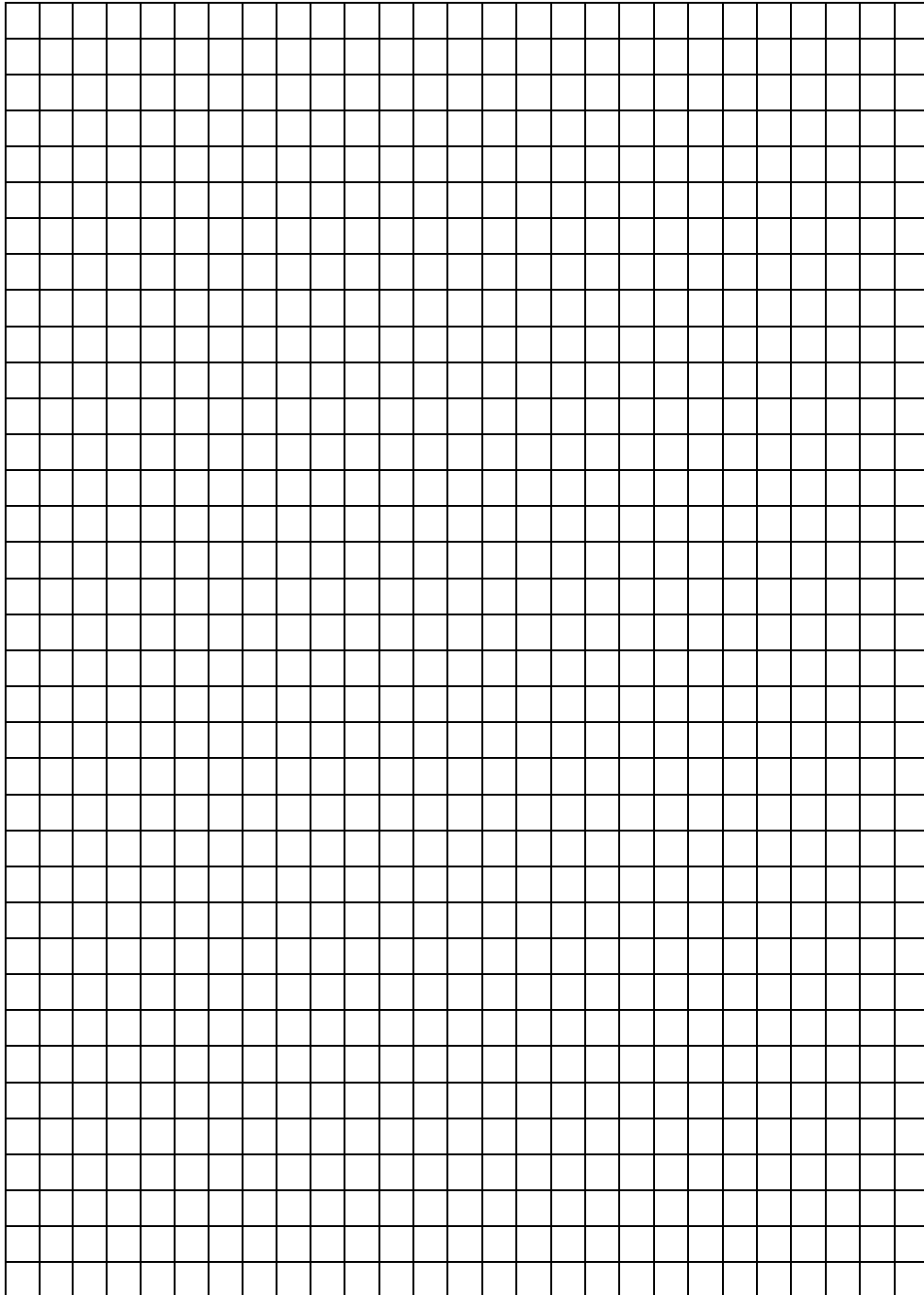
Hamster = ● ● ● ● ●  
○ ○ ○ ○ ○ ○ ○

Horse = ● ● ●  
○ ○ ○ ○ ○



28) Mrs Green has a rectangular shaped garden with a **perimeter** of 24m.

- Draw all the possible gardens.
- Label the length and width of each garden.



## BASIC MATH COMPUTATION from Grade 5

$623 + 4207 =$	$5789 - 4654 =$	$6317 - 969 =$	$73.61 + 102.47$
$431.09 - 47.51 =$	$43 \times 9 =$	$42 \times 18 =$	$61 \times 74 =$
$41.03 + 24.8 =$	$116.24 - 4.33 =$	$248 \times 4 =$	$98 \div 7 =$
$471 \div 9 =$	$602 \div 7 =$	$6402 + 127\,307 =$	$720 \div 5 =$

## Answer Key

### Strand

- |   |  |
|---|--|
| 1. D (Patterns) T-tables                    | 14. A (Number) Place value - order of numbers          |
| 2. C (Shape & Space) Translations           | 15. B (Number) Equivalent fractions                    |
| 3. C (Shape & Space) Graphing               | 16. B (Number) Decimal to common fraction              |
| 4. C (Pattern) Word problem                 | 17. D (Statistics & Probability) Probability           |
| 5. B (Number) Word form to numeral form     | 18. D (Shape & Space) Capacity                         |
| 6. C (Number) Decimal place value           | 19. B (Statistics & Probability) Bar graphs            |
| 7. C (Number) Place value                   | 20. D (Statistics & Probability) T-tables              |
| 8. D (Statistics & Probability) Probability | 21. D (Shape & Space) Classification of quadrilaterals |
| 9. B (Number) Estimation                    | 22. C (Shape & Space) Parallel lines                   |
| 10. C (Number) Division - terms             | 23. B (Shape & Space) Translations                     |
| 11. B (Shape & Space) Measurement           | 24. D (Number) Equivalent fractions                    |
| 12. B (Shape & Space) Volume                | 25. B (Shape & Space) Area                             |
| 13. A (Number) Fraction                     |  |

26.

Hardcover	Paperback
5	0
4	1
3	2
2	3
1	4
0	5

1	2	3	4
<ul style="list-style-type: none"> <li>A start beyond copying that shows some understanding</li> </ul>	<ul style="list-style-type: none"> <li>Correct answer of 6 but combinations not shown</li> <li>Appropriate strategy but not carried out far enough (2 to 3 combinations)</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate strategy but missed a condition (4 to 5 combinations)</li> </ul>	<ul style="list-style-type: none"> <li>Correct answer with appropriate strategy (all 6 combinations)</li> </ul>

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



28. 1 x 11, 2 x 10, 3 x 9, 4 x 8, 5 x 7, 6 x 6

1	2	3	4
<ul style="list-style-type: none"> <li>draws a rectangle without correct dimensions</li> </ul>	<ul style="list-style-type: none"> <li>has 2 correct shapes with correct dimensions</li> </ul>	<ul style="list-style-type: none"> <li>3-4 correct combos with dimensions</li> </ul>	<ul style="list-style-type: none"> <li>5 or 6 correct shapes with correct dimensions</li> <li>5 combos with one including a decimal</li> </ul>

### Basic Math Computations

4830	1135	5348	176.08
383.58	387	756	4 514
65.83	111.91	992	14
52r3 52.3 52.333... $52\frac{1}{3}$	86	133 709	144

# Quick Scale: Grade 5 Numeracy

This Quick Scale is a summary of the criteria described in detail in the Rating Scale that follows. These criteria may apply at any time of the year, depending when specific skills or concepts are introduced.

Aspect	Not Yet Within Expectations	Meets Expectations (Minimal Level)	Fully Meets Expectations	Exceeds Expectations
<b>Snapshot</b>	<b>The student may be unable to complete the task without ongoing help; cannot follow procedures independently.</b>	<b>The work satisfies most basic requirements of the task, but it is <i>flawed or incomplete in some way</i>. The student may need some help.</b>	<b>Work is complete and accurate (may include minor flaws or errors). The student is able to develop a simple extension.</b>	<b>Work is complete, accurate, and efficient. The student may find an alternative or a shortcut, or develop an extension.</b>
<b>Concepts and Applications*</b> <ul style="list-style-type: none"> <li>▪ recognizing mathematics</li> <li>▪ concepts, strategies, skills</li> <li>▪ patterns, relationships</li> </ul>	<ul style="list-style-type: none"> <li>▪ unable to identify concepts or procedures needed to solve problems or complete tasks recently modelled in class</li> <li>▪ does not apply relevant concepts, skills, and strategies appropriately</li> <li>▪ often unable to recognize patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li>▪ identifies most concepts and procedures needed if problems or tasks have been recently modelled in class</li> <li>▪ applies most relevant mathematical concepts, skills, and strategies</li> <li>▪ identifies simple patterns and relationships; needs help to use them to solve problems</li> </ul>	<ul style="list-style-type: none"> <li>▪ identifies concepts and procedures needed to solve problems or complete tasks recently modelled in class</li> <li>▪ applies relevant concepts, skills, and strategies appropriately; somewhat inefficient</li> <li>▪ identifies and uses simple patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li>▪ identifies concepts and procedures needed; may propose alternative solutions or shortcuts</li> <li>▪ applies relevant concepts, skills and strategies effectively and efficiently</li> <li>▪ independently identifies, explains, and uses patterns and relationships</li> </ul>
<b>Strategies and Approaches</b> <ul style="list-style-type: none"> <li>▪ analyze problems</li> <li>▪ procedures</li> <li>▪ verify solutions (estimation, mental math, calculator, inverse operations)</li> </ul>	<ul style="list-style-type: none"> <li>▪ unable to analyze problems to develop a plan</li> <li>▪ needs direct support to break tasks into steps</li> <li>▪ unable to verify results or solutions</li> </ul>	<ul style="list-style-type: none"> <li>▪ analyzes problems to develop a plan if problems resemble those recently experienced</li> <li>▪ follows steps without adjusting or checking; inefficient</li> <li>▪ needs help to verify results or solutions</li> </ul>	<ul style="list-style-type: none"> <li>▪ analyzes problems to develop a plan</li> <li>▪ structures the task into logical steps; may be somewhat inefficient</li> <li>▪ if asked, verifies results or solutions</li> </ul>	<ul style="list-style-type: none"> <li>▪ analyzes problems to develop an efficient plan; insightful</li> <li>▪ structures the task efficiently; may find a shortcut or alternative</li> <li>▪ may independently verify results or solutions</li> </ul>
<b>Accuracy</b> <ul style="list-style-type: none"> <li>▪ recording</li> <li>▪ calculations</li> <li>▪ graphic displays</li> </ul>	<ul style="list-style-type: none"> <li>▪ recording is frequently inaccurate</li> <li>▪ includes major calculation errors</li> <li>▪ graphic displays are inaccurate, with major errors</li> </ul>	<ul style="list-style-type: none"> <li>▪ recording includes some errors</li> <li>▪ may include some calculation errors; generally “close”</li> <li>▪ graphic displays include some errors</li> </ul>	<ul style="list-style-type: none"> <li>▪ recording may include minor errors</li> <li>▪ calculations are generally accurate; may include minor errors</li> <li>▪ graphic displays may have minor errors</li> </ul>	<ul style="list-style-type: none"> <li>▪ recording is accurate and precise</li> <li>▪ calculations are accurate; may use mental math</li> <li>▪ graphic displays are accurate and precise</li> </ul>
<b>Representation and Communication</b> <ul style="list-style-type: none"> <li>▪ presenting work</li> <li>▪ constructing tables, charts, diagrams, displays</li> <li>▪ demonstrating procedures, explaining results</li> </ul>	<ul style="list-style-type: none"> <li>▪ work is often confusing; key omissions</li> <li>▪ may omit required visual and graphics; may be inappropriate, incomplete</li> <li>▪ unable to demonstrate procedures or explain results</li> </ul>	<ul style="list-style-type: none"> <li>▪ work is confusing in places; some omissions</li> <li>▪ includes most required visuals and graphics; some are incomplete</li> <li>▪ partially demonstrates procedures and explains results</li> </ul>	<ul style="list-style-type: none"> <li>▪ work is generally clear and easy to follow</li> <li>▪ includes required visuals and graphics; may have minor omissions</li> <li>▪ demonstrates procedures and explains results logically, in own words</li> </ul>	<ul style="list-style-type: none"> <li>▪ work is clear, detailed, and well-organized</li> <li>▪ required visuals and graphics are complete and effective</li> <li>▪ effectively demonstrates procedures; explains results in own words</li> </ul>

\* You may want to list key curriculum concepts or skills for a particular task.

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