



Number



This is one piece of assessment and should be used in conjunction with other tools to make a valued judgment.

Student Name _____ Class _____

Teacher _____ Date _____

Question	Outcome	Description	Demonstrated	Areas to improve
1	5.1	Reads, writes, says and understands the meaning, order and relative magnitude of positive rational numbers and numbers expressed with integer powers.		
2	5.2	Use and connections between the four operations on whole, decimal and fractional numbers, and uses this understanding to choose appropriate operations		
3	5.1	Reads, writes, says and understands the meaning, order and relative magnitude of positive and negative rational numbers and numbers expressed with integer powers.		
4	5.3	Calculates with whole numbers, decimals and fractions		
5	5.3	Calculates with whole numbers, decimals and fractions		
6	5.2	Uses the four operations to choose appropriate operations including where fractional and decimal multipliers and divisors are required		
7	5.1	Understands the relative magnitude of any fractions, decimal and percentages, and knows the more common equivalences between them.		
8	5.1	Understands the order and relative magnitude of decimal numbers.		
9	5.3	Calculates with whole numbers, decimals and fractions		
10	5.4	Recognises, describes and uses number patterns involving one or two operations, and follows, compares and explains rules for linking successive terms in a sequence		
11	5.4 / 5.3	Calculates with whole numbers, decimals and fractions		

Based on your response to this task you

1. have demonstrated.

2. are working towards

an understanding of the outcomes in level 5.



1) Order these numbers from smallest to largest:

$$3^5, 5^3, 9^2, \sqrt{56}, (-7)^2$$

2) I know I can step 6 times in $4\frac{1}{2}$ seconds. What must I do to calculate how many steps I can take in one minute?

3) i) Which two **counting numbers** will $\sqrt{47}$ be between?

$$\underline{\hspace{2cm}} \quad \sqrt{47} \quad \underline{\hspace{2cm}}$$

ii) Explain why using other equations.

iii) Now estimate the value of $\sqrt{47}$.

4) Solve each equation. (In some cases there may be more than one solution. In which case include them all.)

a) $5x + 2 = 12$

b) $3y - 2 = -5$

c) $a^2 = 16$

d) $c^2 - 5 = 20$



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5) Evaluate: (In some cases there may be more than one value. In which case include them all.)

i) $|-5| =$

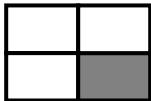
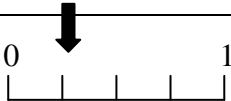
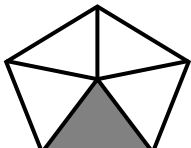
ii) $|-7 + 5| =$

6) i) Write a division equation where the answer is positive and larger than either of the numbers used to produce the answer.

ii) Write a multiplication equation where the answer is positive and smaller than either of the numbers used to produce the answer.

7) All the boxes in the same row are different ways of saying the same thing.

Fill in the empty boxes:

Percent	Common fraction	Diagram	Number line	decimal
25%				
10%				
				1.2
				



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8) Find a number between the following pairs of numbers and explain why the number you have chosen is more than one and less than the other.

i) 6.2 6.3

Why? _____

9) Evaluate these:

i) 2.7×4

ii) 67×0.8

iii) 3.9×0.6

10) A car is travelling at a constant speed of 60km/h.

i) Complete the table:

<i>time in hours (t)</i>	1	2	3	4	5
<i>distance travelled (d)</i>					

ii) What is the rule that describes the relationship between t and d ?

iii) Use your rule to find the distance travelled in hours.

iv) Use your rule to find the time to travel 130km. Verify your results by substitution in your rule.

11) Iggy bought \$200 of Government bonds that had a simple interest rate of 8% pa. In 1995 Jack cashed them in for \$680. In which year did Iggy buy the bonds?