Baldivis
Secondary College

Name: _____   Class: _____   Time: 45 minutes   Total Mark:____/47

Show working and answers on this sheet. Show working in sufficient detail to support your answers. Incorrect answers without supporting reasoning will be allocated zero marks.

Resources: 1 A4 page of notes, 1 side. No calculator allowed.

Question 1	1 mark

What is 0.41 converted to a fraction? Circle the correct answer.

A $\frac{41}{10}$ B $\frac{41}{1000}$ C $\frac{4}{10}$ (D) $\frac{41}{100}$

Question 2	1 mark

Which of the following decimals is the largest? Circle the correct answer.

A   370.17   B   370.117

C   370.137   (D)   370.173

Question 3	1 mark

Write a decimal that is between 3.21 and 3.217.

_____

Question 4	2 marks

Write each decimal correct to two decimal places.

a   4.6751 _4.68_____

b   3.1902 _3.19._____

Question 5	8 marks

Evaluate each expression. Show all working.

a $1.2 \times 0.3 =$ 0.36 ✓✓

b $4.8 \div 0.6 =$ 8 ✓✓

c $4.3 \times 2.5 =$ 10.75 ✓✓

d $0.2148 \div 3 =$ 0.0716 ✓✓

Question 6   2 marks

a Frank bought 20 litres of petrol for his car @ $1.35/L. How much did it cost?

$27 ✓

b He paid for the petrol with a $50 note. How much change should he get?

$23 ✓

Question 7   2 marks

Write each set of decimals in ascending order.

a 0.4, 0.35, 0.08

$0.08 \quad 0.35 \quad 0.4$ ✓

b 0.12, 0.122, 0.102

$0.102 \quad 0.12 \quad 0.122$ ✓

Question 8   2 marks

Evaluate $\frac{5}{8} \div \frac{2}{5}$. Circle the correct answer.

A $\frac{1}{4}$ **B** $\frac{5}{8}$ **(C)** $1\frac{9}{16}$ **D** $2\frac{1}{2}$

Question 9   1 mark

Which of the following is equivalent to $a \times 3$? Circle the correct answer.

A $3 + a$ **(B)** $3a$ **C** $\frac{3}{a}$ **D** $\frac{a}{3}$

Question 10

Simplify each expression.

a $\frac{5}{8} - \frac{3}{8} =$ $\frac{2}{8} = \frac{1}{4}$ ✓

b $\frac{3}{4} + \frac{1}{3} =$ $\frac{9}{12} + \frac{4}{12}$ ✓ $= \frac{13}{12} = 1\frac{1}{12}$ ✓
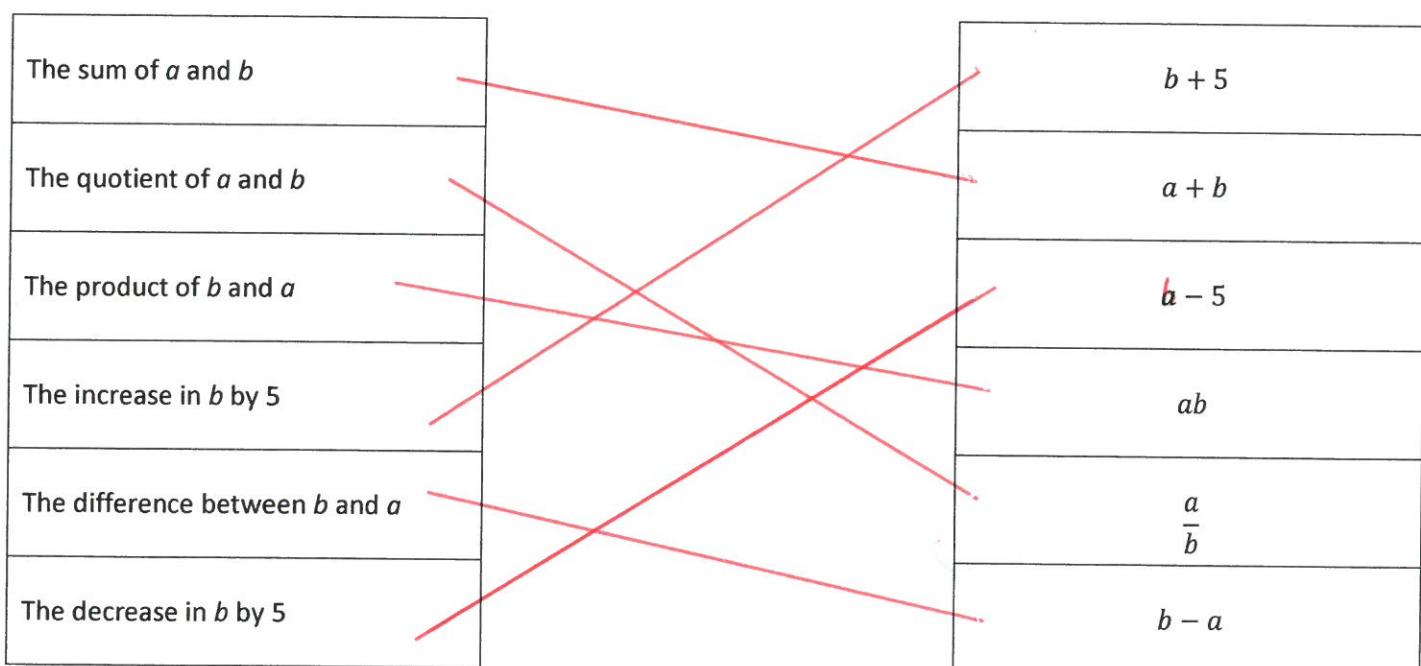
c $2\frac{2}{3} \times 1\frac{3}{4} =$ $\frac{28}{3} \times \frac{7}{\cancel{4}1}$ ✓ $= \frac{14}{3} = 4\frac{2}{3}$ ✓

Question 11

Draw a line from the sentence on the left to the matching expression on the right.   *1 mark each.*

The sum of *a* and *b*		$b + 5$
The quotient of *a* and *b*		$a + b$
The product of *b* and *a*		$b - 5$
The increase in *b* by 5		ab
The difference between *b* and *a*		$\dfrac{a}{b}$
The decrease in *b* by 5		$b - a$

Question 12

Which fraction is larger? Circle the correct answer.

$\boxed{\frac{2}{5}}$ *or* $\frac{1}{3}$

3

Question 13   **3 marks**

Write an algebraic expression for:

a   the product of p and 8

$$8 \times p = 8p \checkmark$$

b   the difference between p and 4

$$p - 4 \checkmark$$

c   the sum of 3 times p and 7

$$3p + 7 \checkmark$$

Question 14   **3 marks**

Substitute the values $k = 3$ and $m = 5$ and calculate the values of each of the following expressions.

a $k + m$

$$3 + 5 = 8 \checkmark$$

b $4 + 3m$

$$4 + 3 \times 5 = 19 \checkmark$$

c $m - 2 + k$

$$5 - 2 + 3 = 6 \checkmark$$

Question 15   **3 marks**

Fiona said that if she makes $x = 3$ and substitutes it into the expressions $2(x + 7)$ and $2x + 14$ the answer will be the same. Is she correct? Explain why she is or is not correct.

$$2(3 + 7) = 20 \checkmark \quad 2 \times 3 + 14 = 20 \checkmark \qquad Reason \checkmark$$

Question 16   **3 marks**

Write expressions for the following statements:

   a.   The sum of 11 and a number.

$$11 + a \checkmark$$

b. Half of a number plus 13.

$$\frac{1}{2}a + 13 \checkmark$$

c. A number divided by 3 and then doubled.

$$\frac{2x}{3} \text{ or } \frac{x}{3} \times 2 \checkmark$$

Question 17   **3 marks**

Melody works as a waitress in a coffee shop. Let c be coffee and t be tea.

a. If she takes an order for 3 teas and 5 coffees, write this as an expression using symbols and numbers.

$$3t + 5c \checkmark$$

b. If the price for a coffee is $2.50 and the price for a tea is $2, use your expression from part a to find the total cost.

$$3 \times 2 + 5 \times 2.50 = \$18.50 \checkmark$$

END OF TEST