

# Year 7 –Mathematics

## End of Year Paper 1

Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

Total 60 marks

Time allowed : 45 minutes

No Calculators Allowed

1. Fill in the blanks for this table

Simplified Fraction	Decimal	Percentage
$\frac{3}{20}$		
	0.003	
		48%

(3)

2. David needs to buy 40 dictionaries. He looks at the prices at two shops.

Shop	Deal
Books 2go	12 dictionaries for £45
Bargain Books	15 dictionaries for £54

What is the difference in price for 40 dictionaries?

\_\_\_\_\_ (4)

3. a. Circle the two calculations which are correct uses of distributivity/partitioning of

$$408 \div 12$$

$$\frac{408}{4} + \frac{408}{3}$$

$$\frac{360}{12} + \frac{48}{12}$$

$$\frac{400}{12} + \frac{8}{12}$$

$$\frac{204}{6} + \frac{204}{6}$$

(2)

- b. Calculate

$$408 \div 12$$

\_\_\_\_\_ (2)

4. Simplify the following expressions

a.  $t + t + t$

\_\_\_\_\_ (1)

b.  $11v + 9p - 4v + 8p$

\_\_\_\_\_ (2)

c.  $y^2 - 2y + y^2 - 2y + y^2 - 2y$

\_\_\_\_\_ (2)

5. Find the value of each of these calculations

a.  $2 \times 5 - 4 \times 3$

\_\_\_\_\_ (2)

b.  $2 \times 3^3 - 5 + 7$

\_\_\_\_\_ (3)

c.  $\frac{(2 + 2) \times (3 + 2)}{2 + 2 \times 3 + 2}$

\_\_\_\_\_ (3)

6. Sally is paid £12 each hour to work in a warehouse.  
She is given a pay rise of 15%.

a. Find Sally's new wage.

\_\_\_\_\_ (3)

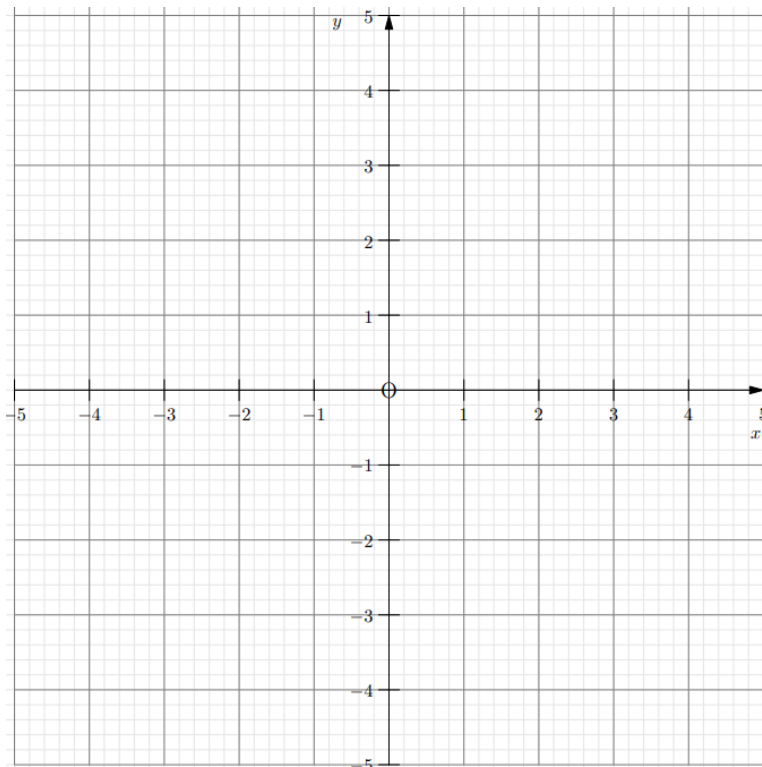
b. How much **more** will Sally earn in each 8 hour shift, after her pay rise?

\_\_\_\_\_ (3)

7. a. On the axes below draw the lines

$$x = 2$$

$$y = -3$$



b. Label the region,  $R$ , that satisfies both inequalities

$$x < 2$$

$$y > -3$$

(2)

(1)

8. Work out the value of the following

a.  $-3 + -6$

\_\_\_\_\_ (1)

b.  $-3 \times -6$

\_\_\_\_\_ (1)

c.  $-3 - -6$

\_\_\_\_\_ (1)

d.  $-3 \div -6$

\_\_\_\_\_ (1)

9. Write an expression to describe each of the following:

a. The number of sweets each person would receive if  $k$  sweets are shared between  $m$  people.

\_\_\_\_\_ (1)

b. The total distance a person runs in one week if they run  $p$  kilometres every day from Monday to Friday and run  $j$  kilometres on each day of the weekend.

\_\_\_\_\_ (2)

10. Calculate the value of

$1.65 \div 1.5$

\_\_\_\_\_ (3)

11. Fill in the missing fraction

a.  $\frac{3}{5} \times \frac{9}{10} = \text{---}$

\_\_\_\_\_ (2)

b.  $\frac{3}{5} \times \text{---} = \frac{9}{10}$

\_\_\_\_\_ (2)

c.  $\frac{9}{10} \times \text{---} = \frac{3}{5}$

\_\_\_\_\_ (2)

12. a. Expand

$$2y(y - 3)$$

\_\_\_\_\_ (2)

b. Simplify

$$2y \times 3y$$

\_\_\_\_\_ (2)

c. Expand and simplify fully

$$2y(y - 3) + 2y \times 3y$$

\_\_\_\_\_ (2)

d. Fully factorise

$$8y^2 - 6y$$

\_\_\_\_\_ (2)

13. Calculate the value of

$$1\frac{2}{3} \div 2\frac{1}{5}$$

\_\_\_\_\_ (3)

**End of Paper – Total 60 Marks**