

# Substitution

1 Ron has given values to these cubes.

$$\text{Green cube} = 6 \quad \text{Red cube} = 1$$



Use Ron's values to work out the value of each set of cubes.

a)

b)

c)

d)

2

$$\text{Purple triangle} = 12 \quad \text{Red square} = 5$$

Use the given facts to work out the calculations.

a) -

b)  $\times$

c) Create your own calculation that will be equal to 22

3

If  $a = 10$  and  $b = 6$ , work out the values of the expressions.

a)  $a + b =$

d)  $2a + b =$

b)  $a - b =$

e)  $3a - 17 =$

c)  $2a =$

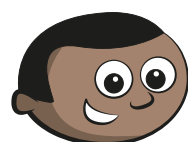
f)  $2(a - b) =$



4 If  $m = \frac{4}{5}$  and  $k = 0.1$ , work out the value of  $m + 2k$



5



It does not matter what  $p$  and  $q$  are,  $p + q$  and  $q + p$  will always give the same answer.

Do you agree with Mo? \_\_\_\_\_

Explain your answer.



6

$$m = 7 \quad n = 5$$

Write  $>$ ,  $<$  or  $=$  to compare the expressions.

a)  $2m$    $10$

b)  $n - 1$    $5$

c)  $2n + m$    $2m + n$

d)  $7n$    $5m$

7

$$a = 10$$

Write the expressions in order, starting with the smallest value.

$$5a$$

$$a + 5$$

$$\frac{a}{5}$$

$$a - 9$$





8

$$a = 15$$

Write three different algebraic expressions that give a value of 40

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\_\_\_\_\_

\_\_\_\_\_

9

Complete the table.

$x$	$5x$	$5x - 1$
2		
10		
12		
	25	
		34
		99

