

2. (a) Simplify  $4x + 3y - 2x + 5y$

$$\underline{\quad} \quad \underline{\quad}$$
$$2x + 8y$$

.....  
(2)

Compasses cost  $c$  pence each.

Rulers cost  $r$  pence each.

(b) Write down an expression for the total cost, in pence, of 2 compasses and 4 rulers.

$$2c + 4r$$

..... pence  
(2)

**(Total 4 marks)**

1. Simplify

$$6x + 9y + 2x - 3y$$

$$8x + 6y$$

.....  
(Total 2 ma

$$h = 5t^2 + 2$$

$$-2x - 2$$

(a) (i) Work out the value of  $h$  when  $t = -2$

$$h = 5(-2)^2 + 2$$

$$5 \times 4 + 2 = 22$$

(ii) Work out a value of  $t$  when  $h = 47$

$$47 = 5t^2 + 2$$

$$45 = 5t^2 \quad t^2 = 9$$

$$45 \div 5 = t^2$$

✓ 5

$t = 3$

1. (a) Simplify

$$\underline{2a + 3b - a - b}$$
$$a + 2b$$

$$2a - a$$
$$a + a - a$$

(b) Expand

$4(2m - 3n)$

$$8m - 12n$$

1. (a) Simplify  $5bc + 2bc - 4bc$

$$(5 + 2 - 4)bc$$

$$3bc$$

(1)

(b) Simplify  $4x + 3y - 2x + 2y$

$$4x - 2x + 3y + 2y$$

$$2x + 5y$$

(2)

(c) Simplify  $m \times m \times m$

$$m^3$$

$$m \times m$$

$$m^2$$

$$m + m$$

$$2m$$

(1)

(d) Simplify  $3n \times 2p$

$$3 \times 2 \times n \times p$$
$$6np$$

2. (a) Simplify

$$p \times p \times p \times p$$

X

$$= p^4$$

(b) Simplify

$$2c \times 3d$$

$$6cd$$

(Total 2 marks)

3. (a)  $p = 2$   
 $q = -4$

Work out the value of  $3p + 5q$

$$\begin{aligned} & 3(2) + 5(-4) \\ & 6 - 20 \\ & = -14 \end{aligned}$$

(b) Factorise  $3m - 6$

$$\underline{\quad} - \underline{\quad} 3 (m - 2)$$