

8 Rearrange this equation to make  $x$  the subject.

$$y = 7x + 2$$

$$x = \dots\dots\dots [2]$$

7 Make  $x$  the subject of this formula.

$$2y = 5x - 7$$

$$x = \dots\dots\dots [2]$$

11

$$y = \frac{w^2}{2}$$

Rearrange the formula to make  $w$  the subject.

$$w = \dots\dots\dots [1]$$

8  $s = \frac{1}{2}at^2$

(a) Work out the value of  $s$  when  $a = 0.9$  and  $t = 4$ .

$s = \dots\dots\dots$  [1]

(b) Rearrange the formula to find  $t$  in terms of  $s$  and  $a$ .

$t = \dots\dots\dots$  [2]

19 Make  $y$  the subject of the formula.

$$h^2 = x^2 + 2y^2$$

$y = \dots\dots\dots$  [3]

10 Rearrange the formula to make  $x$  the subject.

$$y(x+4) = 2$$

$x = \dots\dots\dots$  [2]

12 Rearrange this formula to make  $R$  the subject.

$$P = \frac{2(Q+3R)}{5}$$

$R = \dots\dots\dots$  [3]

8  $A = 2\pi rh + 3\pi r^2$

Rearrange the formula to write  $h$  in terms of  $\pi$ ,  $r$  and  $A$ .

$h = \dots\dots\dots$  [2]

14  $y = 2w^2 - x$

Rearrange the formula to make  $w$  the subject.

$w = \dots\dots\dots$  [3]

7  $J = h^3 + k^3$

(a) Find the value of  $J$  when  $h = 3$  and  $k = 4$ .

$J = \dots\dots\dots$  [2]

(b) Rearrange the formula to write  $h$  in terms of  $J$  and  $k$ .

$h = \dots\dots\dots$  [2]

10  $J = m(k^2 + h^2)$

Rearrange the formula to make  $h$  the subject.

$h = \dots\dots\dots$  [3]

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11  $P = M(g^2 + h^2)$

(a) Find the value of  $P$  when  $M = 100$ ,  $g = 3$  and  $h = 4.5$ .

$P = \dots\dots\dots$  [2]

(b) Rearrange the formula to write  $g$  in terms of  $P$ ,  $M$  and  $h$ .

$g = \dots\dots\dots$  [3]

15  $y = \sqrt{u^2x}$

(a) Find the value of  $y$  when  $u = 7$  and  $x = 25$ .

$y = \dots\dots\dots$  [2]

(b) Rearrange the formula to write  $x$  in terms of  $u$  and  $y$ .

$x = \dots\dots\dots$  [2]

15  $T = \sqrt{3d - e}$

Rearrange the formula to make  $d$  the subject.

$d = \dots\dots\dots$  [3]

10 Rearrange the formula to write  $x$  in terms of  $a$  and  $y$ .

$$y = \sqrt{x^2 + 2a^2}$$

$x = \dots\dots\dots$  [3]

15  $m = 2p + \sqrt{\frac{x}{y}}$

Make  $x$  the subject of this formula.

$x = \dots\dots\dots$  [3]

15 Rearrange the equation to make  $x$  the subject.

$$A + 4y = A(2 - 3x)$$

$$x = \dots\dots\dots [3]$$

(b) Rearrange the formula  $V = 2x^3 - 3y^3$  to make  $y$  the subject.

$$y = \dots\dots\dots [3]$$

14  $A = P(1+x)^3$

Rearrange the formula to write  $x$  in terms of  $A$  and  $P$ .

$$x = \dots\dots\dots [3]$$

11  $y = \frac{2}{x+3}$

Rearrange the formula to make  $x$  the subject.

$x = \dots\dots\dots$  [3]

(d) Make  $x$  the subject of the formula.

$$x = \frac{3+x}{y}$$

$x = \dots\dots\dots$  [3]

14 Make  $x$  the subject of  $A = \frac{3(x+y)}{x}$ .

$x = \dots\dots\dots$  [3]

18 Make  $x$  the subject of the formula.

$$c = \frac{3x}{2x-5}$$

$x = \dots\dots\dots$  [4]

17 Rearrange the formula to make  $m$  the subject.

$$R = \frac{2(m-k)}{m}$$

$m = \dots\dots\dots$  [4]

14 Make  $x$  the subject of the formula.

$$\frac{p}{x} = \frac{q}{x-2}$$

$$x = \dots\dots\dots [3]$$

12 Rearrange this formula to make  $x$  the subject.

$$y = \frac{a-x}{3x}$$

$$x = \dots\dots\dots [3]$$

15 Make  $h$  the subject of the formula  $2mh = g(1-h)$ .

$$h = \dots\dots\dots [4]$$

(e) Make  $x$  the subject of the formula.

$$y = \frac{5(p-2x)}{x}$$

$x = \dots\dots\dots$  [4]

18 Make  $t$  the subject of the formula.

$$2 = \frac{m(1-t)}{pt}$$

$t = \dots\dots\dots$  [4]

17  $y = \frac{3x-2}{1-x}$

Make  $x$  the subject of the formula.

$x = \dots\dots\dots$  [4]

9 Rearrange this equation to make  $x$  the subject.

$$\frac{a}{2x-3} = \frac{b}{5x}$$

$x = \dots\dots\dots$  [3]