GCSE FOUNDATION · REVISION MAT 5

Changing the subject

1 Make x the subject of

(a) $y = x + 2$

(b) $y = 10x$

2 Make d the subject of

$P = 3d + 8$

3 Pam makes x the subject of $y = 6x - 1$

Pam writes $x = \frac{y - 1}{6}$

Explain the mistake Pam has made.

4 Show that rearranging $s = d/t$ to make d the subject gives

d = st

5 A plumber uses this formula to work out a bill.

$C = 20 + 16h$

C is the cost in £ and h is the number of hours.

(a) Make h the subject.

(b) A bill is £116. How many hours did the plumber work?

6 $y = 4x - 9$

(a) Make x the subject.

(b) Work out x when $y = 23$.

ANSWERS · REVISION MAT 5

Changing the subject

1 (a) $x = y - 2$

(b) $x = \frac{y}{10}$

2 $P - 8 = 3d$

$d = \frac{P - 8}{3}$

3 To undo − 1 you must **add** 1.

$x = \frac{y + 1}{6}$

4 Multiply both sides by t: d = st ✓

5 (a) $h = \frac{C - 20}{16}$

(b) (116 − 20) ÷ 16 = **6 hours**

6 (a) $x = (y + 9) \div 4$

(b) **8**