GCSE FOUNDATION · REVISION MAT 4

Changing the subject

1 Make x the subject of

(a) $y = x + 9$

(b) $y = 6x$

2 Make c the subject of

$P = 6c - 1$

3 Oli makes x the subject of $y = 2x - 9$

Oli writes $x = \frac{y - 9}{2}$

Explain the mistake Oli has made.

4 Show that rearranging
$C = 2\pi r$ to make r the subject gives

$r = C \div (2\pi)$

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

$C = 35 + 12h$

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

(a) Make h the subject.

(b) A bill is £107. How many hours did the plumber work?

6 $T = 30w + 20$

(a) Make w the subject.

(b) Work out w when $T = 110$.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Changing the subject

1 (a) $x = y - 9$

(b) $x = \frac{y}{6}$

2 $P + 1 = 6c$

$c = \frac{P + 1}{6}$

3 To undo – 9 you must **add** 9.

$x = \frac{y + 9}{2}$

4 C ÷ 2π = r ✓

5 (a) $h = \frac{C - 35}{12}$

(b) (107 – 35) ÷ 12 = **6 hours**

6 (a) $w = (T - 20) \div 30$

(b) **3**