GCSE FOUNDATION · REVISION MAT 1

Changing the subject

1 Make x the subject of

(a) $y = x + 7$

(b) $y = 5x$

2 Make a the subject of

$P = 4a + 3$

3 Leo makes x the subject of $y = 3x - 2$

Leo writes $x = \frac{y - 2}{3}$

Explain the mistake Leo has made.

4 Show that rearranging

$A = \frac{1}{2}bh$ to make h the subject gives

$h = 2A \div b$

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

$C = 25 + 15h$

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

(a) Make h the subject.

(b) A bill is £100. How many hours did the plumber work?

6 $F = 1.8C + 32$

(a) Make C the subject.

(b) Work out C when $F = 77$.

ANSWERS · REVISION MAT 1

Changing the subject

1 (a) $x = y - 7$

(b) $x = \frac{y}{5}$

2 $P - 3 = 4a$

$a = \frac{P - 3}{4}$

3 To undo – 2 you must **add** 2.

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

4 $A = \frac{1}{2}bh \rightarrow 2A = bh \rightarrow h = 2A \div b$ ✓

5 (a) $h = \frac{C - 25}{15}$

(b) $(100 - 25) \div 15 =$ **5 hours**

6 (a) $C = (F - 32) \div 1.8$

(b) **25**