GCSE FOUNDATION · REVISION MAT 5

Substitution

1 $a = -2$ and $b = 5$

Work out the value of

(a) $5a + b^2$

(b) $ab - a$

2 $s = d \div t$

Work out the value of s when $d = 147$, $t = 3.5$

3 Pia says,

"When $x = -2$, the value of x^3 is 8."

Explain why Pia is wrong.

4 $p = -3$ and $q = -4$

Show that $pq - 2p = 18$

5 A taxi firm uses this formula to work out the cost of a journey.

$C = 2 + 1.9m$

C is the cost in pounds and m is the number of miles.

Hana has £30. Can she afford a 14-mile journey?

6 The time, T minutes, to cook a chicken is

$T = 40w + 25$

where w is the weight in kg.

A 3.5 kg chicken must be ready at 5 pm.

What is the latest time it can go in the oven?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Substitution

1 (a) **15**

(b) **–8**

2 ***s* = 42**

3 $(-2)^3 = -2 \times -2 \times -2$, which is negative.

$x^3 = \mathbf{-8}$

4 Substitute carefully, using brackets for negatives:

$pq - 2p = 18$ ✓

5 C = 2 + 1.9 × 14 = £28.60

Yes, she has £1.40 left.

6 T = 40 × 3.5 + 25 = 165 minutes

165 minutes = 2 h 45 min

Latest start: **2:15 pm**