GCSE HIGHER · REVISION MAT 1

Solving linear equations

1 Solve

$$5x - 8 = 27$$

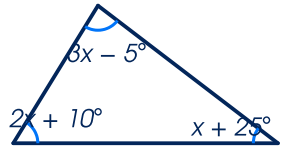
2 Solve

$$3(2x + 1) = 4x + 15$$

3 Ria says the solution of $7 - 2x = 15$ is $x = 4$.

Is Ria correct? Show working.

4 Find the size of the largest angle.



5 Show that the solution of

$$\frac{2x + 3}{5} = \frac{x - 1}{2}$$

is $x = 11$.

6 A rectangle measures $(3x - 2)$ cm by $(x + 4)$ cm.

A square has sides of $(x + 5)$ cm.

Their perimeters are equal.

Find the area of the square.

7 Solve

$$\frac{x + 2}{3} - \frac{x - 4}{5} = 2$$

8 Solve

$$\frac{x + 1}{x - 3} = \frac{x + 4}{x - 1}$$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Solving linear equations

1 $5x = 35$

$x = 7$

2 $6x + 3 = 4x + 15$

$2x = 12$

$x = 6$

3 $-2x = 8$

$x = -4$, so Ria is wrong.

4 $6x + 30 = 180$

$x = 25$

Angles 60°, 50°, 70°

Largest = 70°

5 $2(2x + 3) = 5(x - 1)$

$4x + 6 = 5x - 5$

$x = 11$

6 $2(4x + 2) = 4(x + 5)$

$8x + 4 = 4x + 20 \Rightarrow x = 4$

Square side 9 cm

Area = 81 cm²

7 $5(x + 2) - 3(x - 4) = 30$

$2x + 22 = 30$

$x = 4$

8 $(x + 1)(x - 1) = (x + 4)(x - 3)$

$x^2 - 1 = x^2 + x - 12$

$x = 11$

Mr&Mrs MATHS