GCSE FOUNDATION · REVISION MAT 5

Solving linear equations

1 Solve

(a) $4x - 9 = 23$

(b) $\frac{x}{6} + 4 = 11$

2 Solve

$6(3x + 1) = 60$

3 Xavi solves $2x + 11 = 35$

Xavi writes:

$2x = 46$

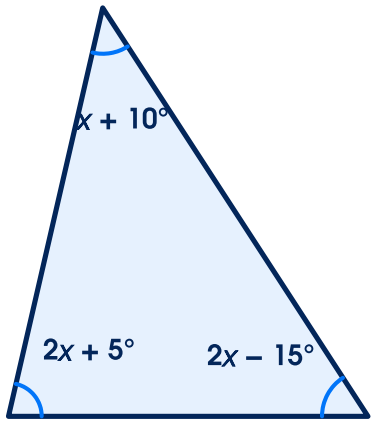
$x = 23$

Explain the mistake Xavi has made.

4 Show that $x = 4$ is the solution of

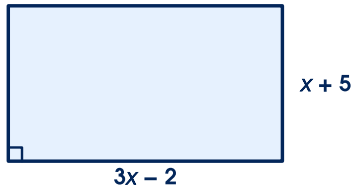
$9x - 7 = 4x + 13$

5 The angles of this triangle are in degrees.



Work out the size of the largest angle.

6 The perimeter of this rectangle is 54 cm.



Work out the area of the rectangle.

ANSWERS · REVISION MAT 5

Solving linear equations

1 (a) $4x = 32$, $\boldsymbol{x = 8}$

(b) $\frac{x}{6} = 7$, $\boldsymbol{x = 42}$

2 $3x + 1 = 10$

$3x = 9$

$\boldsymbol{x = 3}$

3 Xavi did the wrong inverse: to remove +11 you must subtract 11.

$2x = 24$, so $\boldsymbol{x = 12}$

4 Left: $9 \times 4 - 7 = 29$

Right: $4 \times 4 + 13 = 29$

Both sides equal 29 ✓

5 $5x = 180$

$x = 36$

Angles: 77°, 57°, 46°

Largest = **77°**

6 $2(3x - 2) + 2(x + 5) = 54$

$8x + 6 = 54$, so $x = 6$

$16 \times 11 =$ **176 cm^2**