

- 1 Solve $3x = 2x$
Circle your answer.

[1 mark]

$x = -1$

$x = 0$

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

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

2

Solve $\frac{x+15}{3} = 2(x+10)$

[4 marks]

 $x =$ _____

3 A curve has the equation $y = x^2 - 6x + 17$

The turning point of the curve is at $(a, 8)$

3 (a) The turning point of the curve $y = x^2 + 4x + b$ also has y -coordinate 8

Work out the value of b .

[2 marks]

Answer _____

4 Here is an identity.

$$a(3x - 10) \equiv 21x + 2b$$

Work out the values of a and b .

[3 marks]

$a =$ _____ $b =$ _____

5

Solve

$$1 \quad x = 62.4 - 3x$$

[2 marks]

$$x = \underline{\hspace{10em}}$$

6 Solve $\frac{2w}{15} = \frac{4}{5}$

[2 marks]

$w =$ _____

7 Solve $5(2x - 1) = 6x + 9$

[3 marks]

$x =$ _____

8

$$(a - 3)x^2 + 2b \equiv 5x^2 + 12$$

Work out the values of a and b .

[2 marks]

$a =$ _____ $b =$ _____

9 Solve $5x + 11 = 3x + 19$

[2 marks]

$x =$ _____

10

Solve $\frac{x+8}{2} + \frac{9-x}{5} = 4$

[4 marks]

 $x =$ _____

11 Solve $7x - 22 = 4x + 29$

[3 marks]

$x =$ _____