When you solve, show the line where you do the same thing to both sides, then check your answer.

1 Determine whether $x = 3$ is a solution of each equation. Write **yes** or **no** and show your substitution.

(a) $x + 12 = 15$ (1)

(b) $21 - x = 17$ (1)

(c) $7x = 21$ (1)

(d) $48 = x + 45$ (1)

(4 marks)

2 Determine whether $y = 12$ is a solution of each equation.

(a) $7y = 84$ (1)

(b) $72 = 6y$ (1)

(c) $y - 5 = 8$ (1)

(d) $\frac{y}{4} = 3$ (1)

(4 marks)

3 Solve each equation.

(a) $x + 19 = 52$ (1)

(b) $y - 12 = 14$ (1)

(c) $n + 8 = 23$ (1)

(d) $p - 7 = 31$ (1)

(4 marks)

4 Solve each equation.

(a) $8x = 104$ (1)

(b) $5n = 45$ (1)

(c) $\frac{x}{4} = 7$ (1)

(d) $\frac{m}{3} = 12$ (1)

(4 marks)

5 Solve each equation. The letter is on the right-hand side.

(a) $48 = x + 19$ (1)

(b) $61 = n + 37$ (1)

(c) $35 = y - 17$ (1)

(d) $105 = 15x$ (1)

(4 marks)

6 A pupil solving $x + 14 = 30$ wrote $x = 44$.

(a) Check the pupil's answer by substituting it (2)

(b) Write down what the pupil did (2)

(c) Solve the equation correctly (1)

(4 marks)