

- 1 (a) Find the values of a and b so that this is an identity.

$$5x + 3(x + 1) \equiv ax + b$$

(a) $a =$ _____

$b =$ _____ [2]

- (b) Find possible values of c and d so that this is an equation with the solution $x = 2$.

$$5x + 3(x + 1) = cx + d$$

(b) $c =$ _____

$d =$ _____ [2]

- 2 (a) Solve this equation.

$$5x - 4 = 3x + 7$$

(a) [3]

- (b) Here are the first four terms of a sequence.

4 7 10 13

Find an expression for the n th term of this sequence.

(b) [2]

3 (a) Solve this equation.

$$5x - 4 = 3x + 7$$

(a) [3]

(b) Factorise fully.

$$7y^2 - 14y$$

(b) [2]

- 4 (a) Find the values of a and b so that the following is an identity.

$$2x + a(3x + 5) = bx + 30$$

(a) $a =$ _____

$b =$ _____ [3]

- (b) Rearrange this formula to make p the subject.

$$H = \sqrt{\frac{10p^3}{c}}$$

(b) _____ [4]