1. Nov/2021/Paper_11/No.12

Solve the simultaneous equations.
Show all your working.

$$2x - y = 12$$
$$7x + 3y = 29$$

$x =$ ....
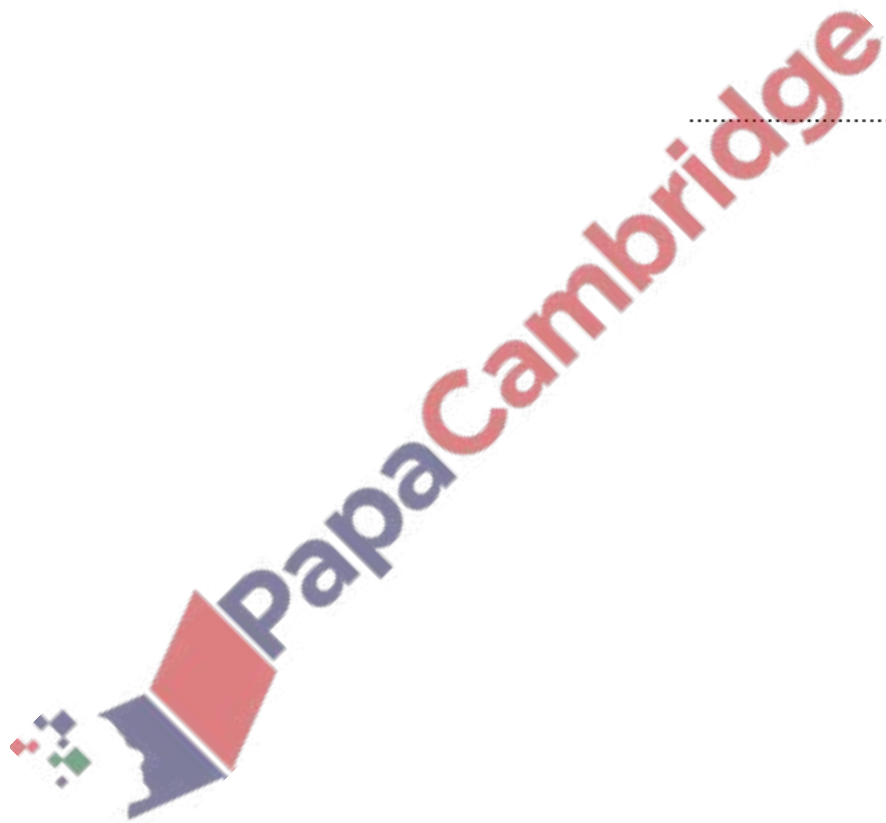
$y =$ .... [3]

2.
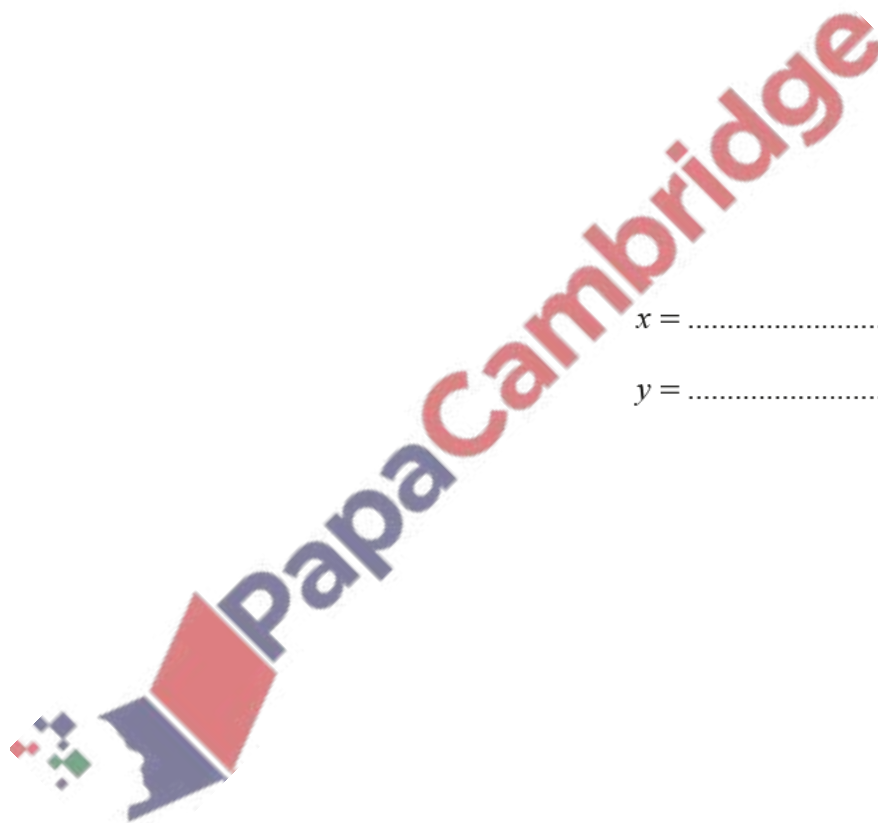
Solve the inequality.
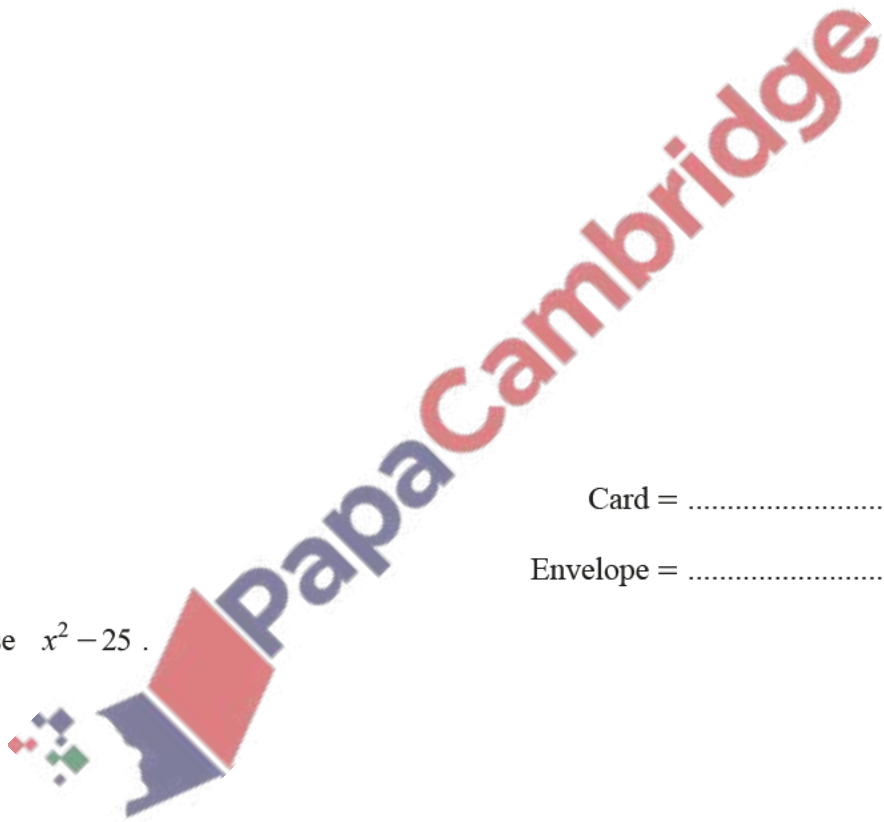
$$23 + 2n > 5 - 6n$$

.... [2]

3.

(a) The mass of 4 cards and 3 envelopes is 85 g.
The mass of 2 cards and 5 envelopes is 67 g.

Form a pair of simultaneous equations and solve them to find the mass of one card and the mass of one envelope.

Card = ... g

Envelope = ... g [4]

(b) Factorise $x^2 - 25$.
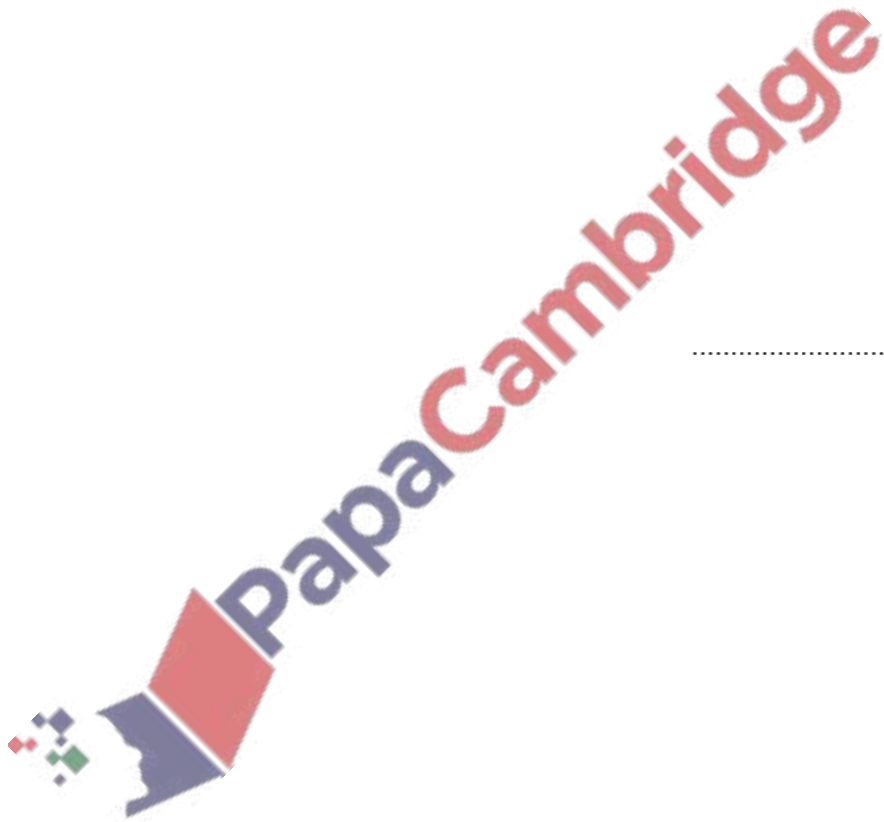
.... [1]

(c) Rearrange the formula $r = \dfrac{2t}{t-5}$ to make t the subject.

(d) Express as a single fraction in its simplest form.
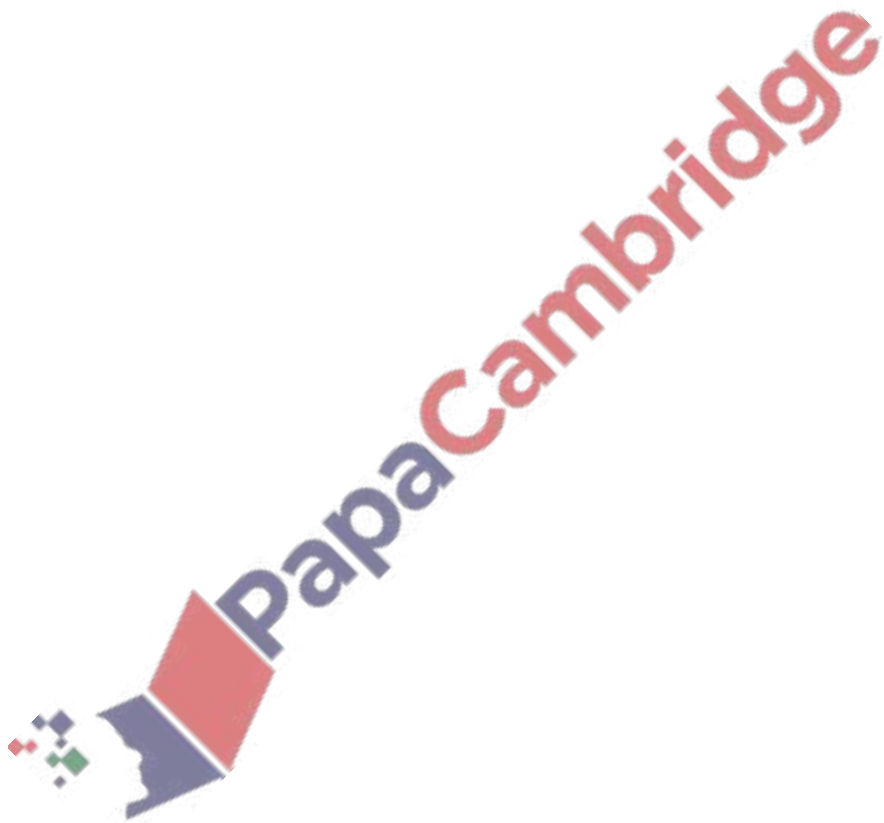
$$\frac{4}{x-5} - \frac{3}{2x+1}$$

.... [3]

4.

Insert the correct symbol $=$, $>$ or $<$ to make each statement correct.

(a) 0.6 kg   ....   60 g   [1]

(b) 15 km   ....   15 000 m   [1]

(c) 4 m^2 ....   400 cm^2 [1]

5.

Solve the simultaneous equations.
Show your working.

$$x + 6y = 0$$
$$3x - 2y = 10$$

$x = $ ....

$y = $ .... [3]

6.
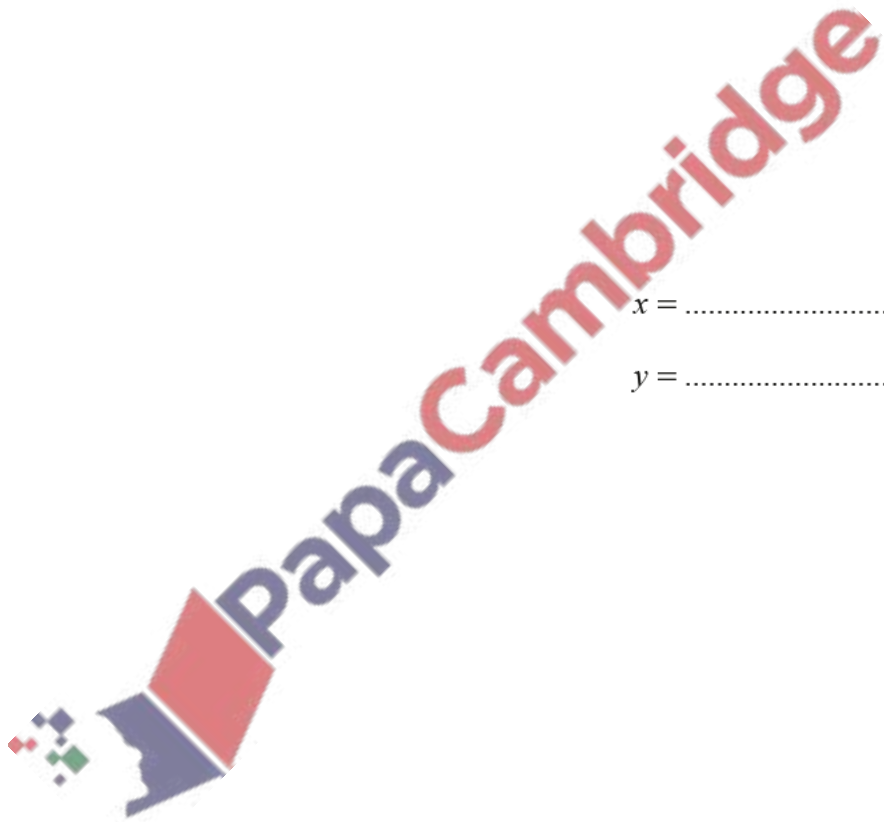
Solve the simultaneous equations.
Show your working.

$$5x + 2y = 7$$
$$2x - 3y = 18$$

$x =$ ....

$y =$ .... [4]