

8th August



Corbettmaths

Solve, giving your answers to one decimal place.

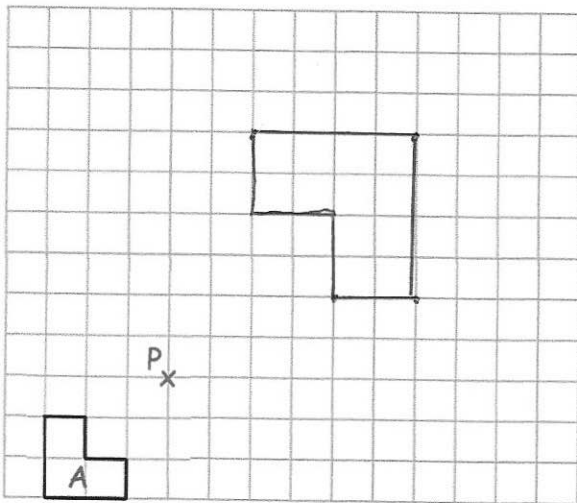
$$x^2 - 6x - 20 = 0$$

$$a = 1$$

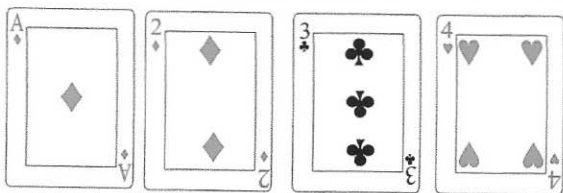
$$b = -6$$

$$c = -20$$

$$x = 8.4 \text{ or } x = -2.4$$



Enlarge shape A by scale factor -2, using the point P as centre of enlargement.



Sophie selects a card at random, then replaces it. She then selects another.

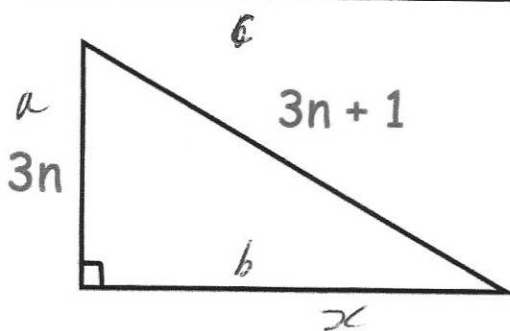
What is the probability she selects one black card and one red card?

$$P(RB) = \frac{3}{4} \times \frac{1}{4} = \frac{3}{16}$$

$$P(BR) = \frac{1}{4} \times \frac{3}{4} = \frac{3}{16}$$

$$\left. \begin{array}{l} P(RB) \\ P(BR) \end{array} \right\} \frac{6}{16} = \frac{3}{8}$$

$$\frac{3}{8}$$



Find an expression for the third side.

$$(3n)^2 + x^2 = (3n+1)^2$$

$$9n^2 + x^2 = 9n^2 + 6n + 1$$

$$x^2 = 6n + 1$$

$$x = \sqrt{6n + 1}$$