Name: _____ 5-a-day Higher

11th October

Corbettmaths

Find the gradient of the line with equation $2x + 5y = 3$

$5y = -2x + 3$

$y = -\frac{2}{5}x + \frac{3}{5}$

Find where the line crosses the x-axis.

$0 = -\frac{2}{5}x + \frac{3}{5}$

$\frac{2}{5}x = \frac{3}{5}$

$x = 1.5$

$(1.5, 0)$

Solve using the quadratic formula

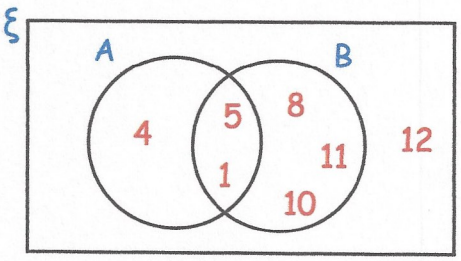
$4x^2 - 12x + 9 = 0$

$a = 4$, $b = -12$, $c = 9$

$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$x = \frac{12 \pm \sqrt{144 - 144}}{8}$

$x = \frac{12}{8} = 1.5$

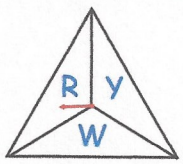


Write down $P(A \cap B)$

$\frac{2}{7}$

Write down $P(A' \cap B')$

$\frac{1}{7}$



The spinner is spun three times.

$P(\text{no red}) = \frac{2}{3} \times \frac{2}{3} \times \frac{2}{3} = \frac{8}{27}$

Find the probability that the spinner lands on red (R) at least once.

$1 - P(\text{no red})$

$\frac{19}{27}$