11th April **Higher 5-a-day**

Corbettmaths

Solve, giving your answers to one decimal place.

$8x^2 - 8x - 9 = 0$

$a = 8$

$b = -8$

$c = -9$

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

$x = \frac{8 \pm \sqrt{64 - (-288)}}{16}$

$x = 1.7$ or $x = -0.7$

Lorcan invested £4000 in a savings for one year.
He receives interest at the end of the year.

Lorcan gives 30% of the interest to his sister, Beth.
Lorcan gives Beth £7.20.

Work out the percentage interest rate for the savings account.

30% of I = 7.20

1% of I = 0.24

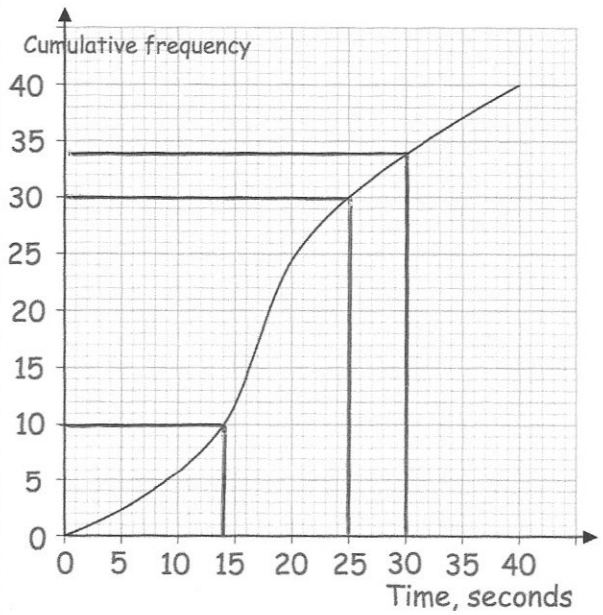
100% of I = £24

$\frac{24}{4000} \times 100 = 0.6\ \%$

The graph shows information about the time taken by 40 children to answer a question.

Find an estimate for the interquartile range.

25 − 14 = 11 seconds

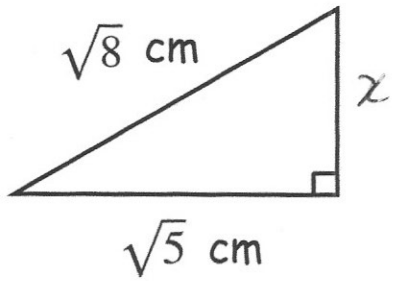


Show that less than 20% of the children took longer than 30 seconds.

6 students took longer than 30 seconds

6 is less than 20% of 40

(8)



Calculate the length of the missing side. Leave your answer as a surd.

$(\sqrt{5})^2 + x^2 = (\sqrt{8})^2$

$5 + x^2 = 8$

$x^2 = 3$ $x = \sqrt{3}$ cm