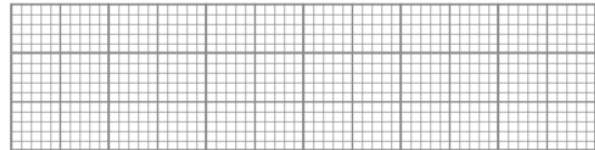Corbettmaths

Every time a ball bounces, it rises to 80% of the previous height.
The ball is dropped from 5 metres and it allows to bounce freely.

What is the smallest number of bounces until its rebound height is less than 50cm?

The youngest person on a flight is 8 years old.
The upper quartile of the ages is 54.
The median is 36.
The range of the ages is 88 and the interquartile range is 30.

Draw a box plot to show this information

Work out

$$\left(\frac{8}{27}\right)^{\frac{2}{3}}$$

Factorise $7x^2 + 8x + 1$

Prove

$(x + 2)(x - 3) \equiv (x - 2)(x + 1) - 4$