

30th March



Every time a ball bounces off a surface, it rises to $\frac{4}{5}$ of the previous height.

A 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 3 metres?

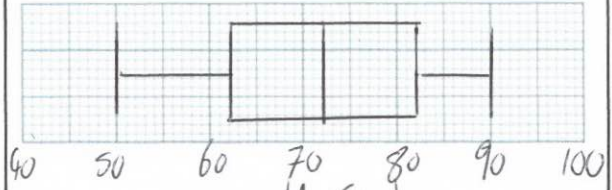
$$5 \times \frac{4}{5} = 4$$

$$4 \times 0.8 = 3.2$$

$$3.2 \times 0.8 = 2.56$$

3 bounces

The lightest female rugby player is 50kg.
 The lower quartile is 62kg.
 The median is 72kg.
 The range is 40kg and interquartile range is 20kg.



UQ 82kg
 Range 40kg

Draw a box plot to show this information

Work out

$$\left(\frac{9}{25}\right)^{\frac{1}{2}}$$

$$\frac{3}{5}$$

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

$$(7x + 1)(x + 1)$$

Prove

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

$$x^2 + x - 2x - 2 - 4$$

$$x^2 - x - 6$$

$$(x + 2)(x - 3)$$

QED