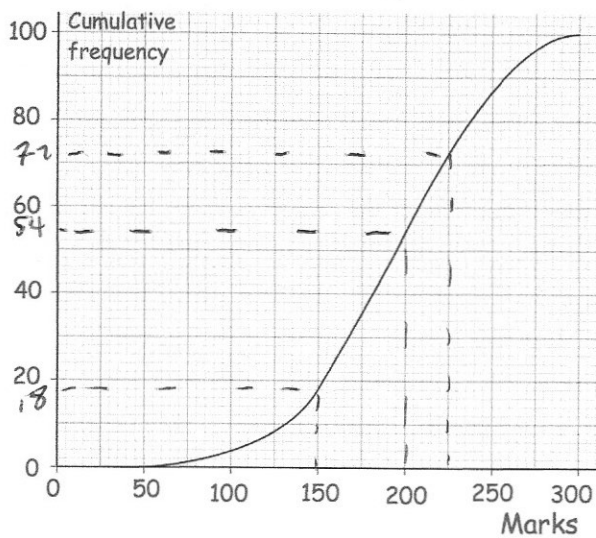




This cumulative frequency curve shows information about the marks scored in a test by 100 students.



Find an estimate of how many students scored over 200 marks.

$$100 - 54 = 46$$

Find an estimate of how many students scored between 150 and 225 marks.

$$72 - 18 = 54$$

The cost of a trip is directly proportional to the square root of the distance.

$$C \propto \sqrt{d} \quad C = k\sqrt{d}$$

The cost is £600 when the distance is 900 miles.

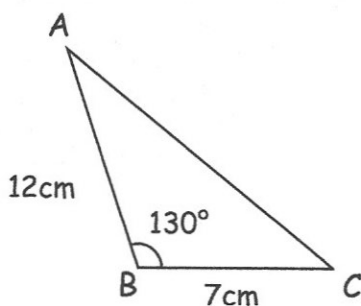
$$600 = k \times 30 \\ k = 20$$

Find a formula connecting the cost, C , and the distance, d .

$$C = 20\sqrt{d}$$

Find the cost of a 400 mile trip.

$$C = 20 \times \sqrt{400} \\ = 20 \times 20 \\ = \pounds 400$$



Find the length AC

$$AC^2 = 12^2 + 7^2 - 2 \times 12 \times 7 \times \cos 130$$

$$AC^2 = 300.988\dots$$

$$AC = 17.349 \text{ cm}$$