

**13th September**

Corbettmaths

Work out

$$125^{\frac{1}{3}} \times 2^{-3}$$

A regular polygon has interior angles that are 5 times larger than each of its exterior angles.

Calculate how many sides it has.

The line L passes through the points  $(-2, 1)$  and  $(2, 3)$ .  
The line N passes through the points  $(4, 7)$  and  $(12, 11)$ .

Bryan says that the lines L and N are parallel.

Is Bryan correct? Explain your answer.

Solve

$$\frac{x+1}{2} + \frac{2x-1}{4} + \frac{x+2}{3} = 1$$

The number of days, D, to complete research is inversely proportional to the number of researchers, R, who are working.

The research takes 125 days to complete if 16 people work on it.

Find how many people are needed to complete the research in 40 days.