M8 =20 days to go!

2 A six-sided dice is rolled 800 times.

Experimental Probability

The table below shows the relative frequency of scoring a six after different numbers of rolls.

Number of rolls	Relative frequency of a six
100	0.3 30%
200	0.26 26%
300	0.27 27%
500	0.23 23%
800	0.25 25%

(a) How many times was a six scored after 300 rolls?

Show how you obtained your answer.

27% of 300

Answer 81 [2]

(b) Which relative frequency from the table gives the best estimate of the probability of scoring a six when this dice is rolled?

Explain your answer.

Answer 0.25

Reason there are most rolls [2]

(c) How many sixes would you expect to get if a **fair** six-sided dice was rolled 300 times?

$\frac{1}{6} \times 300$

Answer 50 [2]

8 Change the recurring decimal 0.561561 … into a fraction in its simplest form.

$x = 0.561561561$

$1000x = 561.561561561\ldots$

$x = 0.561561561\ldots$

$999x = 561$

$x = \frac{561}{999}$

Answer $\frac{561}{999}$ [2]