

M7 = 22 days to go!

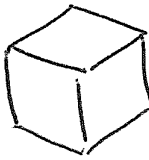
2 (a) Fill in the next two terms of this sequence.

14, 13, 11, 8, 4, -1 [2]

-1 -2 -3 -4 -5

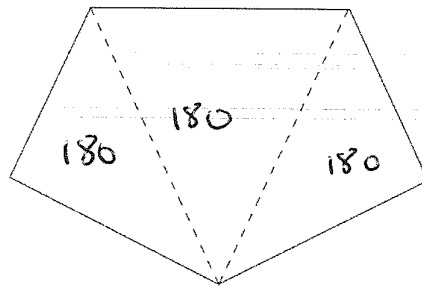
(b) Write down the name of the numbers in the sequence below.

1, 8, 27, 64, ...

1^3 2^3 3^3 4^3 

Answer Cube [1]

8



(a) (i) What is the total of all the angles in the three triangles shown?

Answer 540 ° [1]

(ii) What is the sum of the interior angles of a five-sided polygon?

Answer 540 ° [1]

(b) What is the sum of the interior angles of a seven-sided polygon?

Answer 900 ° [2]

5 triangles

5×180

12 A six-sided dice is rolled 800 times.

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
200	0.26
300	0.27 ^{27%}
500	0.23
800	0.25

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

Show how you obtained your answer.

$$27\% \text{ is } 27 \text{ out of } 100 \text{) } \times 3 \\ 81 \text{ out of } 300$$

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 it has been rolled the most times [2]

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

$$p(\text{six on fair dice}) = \frac{1}{6}$$

$$\frac{1}{6} \text{ of } 300$$

Answer 50 [2]