



THIRD SPACE
LEARNING

GCSE Exam Questions

Error intervals | Number

GCSE Exam Questions: Error intervals

- 1) Kevin truncates the number x to one decimal place. The result is 8.4.

Write the error interval for x .

(2 marks)

- 2) Ana rounds the number y to 2 significant figures. The result is 7200.

Write the error interval for y .

(2 marks)

- 3) Amir measures a door to be 782mm wide to the nearest mm.

Write the error interval for the width of the door, w .

(2 marks)

GCSE Exam Questions: Error intervals

- 4) Lucy measures the volume of some liquid as 25.73ml to 2 decimal places.

Write the error interval for the volume of liquid, v .

(2 marks)

- 5) Olivia calculates an angle of a triangle and truncates her answer to 46.73° .

Write the error interval for the angle, θ .

(2 marks)

- 6) Juan rounds the number n to 3 significant figures. The result is 0.371.

Write the error interval for n .

(2 marks)

GCSE Exam Questions: Error intervals

7) (a) The perimeter, P , of a square is measured as 28cm to the nearest cm .

Write the error interval for P .

(2 marks)

(b) Hence, find the error interval for the side length, l , of the square,

(2 marks)

GCSE Exam Questions: Error intervals Answers

	Question	Answer	Marks
1)	Kevin truncates the number x to one decimal place. The result is 8.4. Write the error interval for x .	8.4 or 8.5 $8.4 \leq x < 8.5$	(1) (1)
2)	Ana rounds the number y to 2 significant figures. The result is 7200. Write the error interval for y .	7150 or 7250 $7150 \leq y < 7250$	(1) (1)
3)	Amir measures a door to be 782mm wide to the nearest mm. Write the error interval for the width of the door, w .	781.5 or 782.5 $781.5\text{mm} \leq w < 782.5\text{mm}$	(1) (1)
4)	Lucy measures the volume of some liquid as 25.73ml to 2 decimal places. Write the error interval for the volume of liquid, v .	25.725 or 25.735 $25.725 \leq v < 25.735\text{ml}$	(1) (1)
3) (a)	Olivia calculates an angle of a triangle and truncates her answer to 46.73° . Write the error interval for the angle, θ .	46.73° or 46.74° $46.73^\circ \leq \theta < 46.74^\circ$	(1) (1)
(b)	Juan rounds the number n to 3 significant figures. The result is 0.371. Write the error interval for n .	0.3705 or 0.3715 $0.3705 \leq n < 0.3715$	(1) (1)
4) (a)	The perimeter, P , of a square is measured as 28cm to the nearest cm. Write the error interval for P .	(a) 27.5 or 28.5 $27.5\text{cm} \leq P < 28.5\text{cm}$	(1) (1)
(b)	Hence, find the error interval for the side length, l of the square.	(b) $27.5 \div 4$ or $28.5 \div 4$ 6.875 or 7.125 $6.875\text{cm} \leq l < 7.125\text{cm}$	(1) (1)

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