3.1 Error Intervals: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write down the bounds for a number given as 5, correct to 1 significant figure, using inequality notation.

(Total for Question 1 is 1 mark)

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2 Give the lower and upper bounds for 0.7, correct to 1 significant figure, using inequalities.

(Total for Question 2 is 1 mark)

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3 A measurement is 3.7, correct to 1 decimal place. Give the lower and upper bounds using inequalities.

(Total for Question 3 is 1 mark)

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4 The mass of a parcel is 76000 kg when rounded to 2 significant figures.
Write down the error interval for the mass, using the letter m.

(Total for Question 4 is 3 marks)

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5 The distance of a journey is 2130 km, correct to the nearest 10 km.
Rosa says the exact distance could be 2125 km. Is Rosa correct? You must show your working.

(Total for Question 5 is 2 marks)

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Mark scheme · 3.1 Error Intervals: 10-minute Pack

Question 1

$4.5 \leq x < 5.5$ cao	**B1**

Answer: $4.5 \leq x < 5.5$

Question 2

$0.65 \leq x < 0.75$ cao	**B1**

Answer: $0.65 \leq x < 0.75$

Question 3

$3.65 \leq x < 3.75$ cao	**B1**

Answer: $3.65 \leq x < 3.75$

Question 4

identifies the rounding unit as 1000	**M1**
lower limit with $\leq$	**B1**
upper limit with $<$	**B1**

Answer: $75500 \leq m < 76500$

Question 5

limits 2125 and 2135 found	**M1**
correct conclusion with comparison to the limits	**A1**

Answer: Yes

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