New Maths GCSE: N15 - Error intervals due to rounding

Name:..   Date:......................................

Having been rounded to the nearest 10, a score (s) is given as 40.

Which of the following gives the correct error interval for s?

A $30 < s \leq 50$ B $30 \leq s < 50$

C $35 < s \leq 45$ D $35 \leq s < 45$

Correct Answer: A B C D

Explanation:

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Having been rounded to the nearest 100, a score (s) is given as 800.

Which of the following gives the correct error interval for s?

A $750 < s \leq 850$ B $700 \leq s < 900$

C $700 < s \leq 900$ D $750 \leq s < 850$

Correct Answer: A B C D

Explanation:

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Having been rounded to the nearest whole number, a score (s) is given as 20.

Which of the following gives the correct error interval for s?

A $19.9 \leq s < 20.1$ B $19.5 \leq s < 20.5$

C $15 \leq s < 25$ D $19 \leq s < 21$

Correct Answer: A B C D

Explanation:

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Having been rounded to 1 decimal place, a score (s) is given as 4.5.

Which of the following gives the correct error interval for s?

A $4 \leq s < 5$

B $4.49 \leq s < 4.51$

C $4.45 \leq s < 4.55$

D $4.4 \leq s < 4.6$

Correct Answer: A B C D

Explanation:

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Having been rounded to 2 decimal places, a score (s) is given as 5.04.

Which of the following gives the correct error interval for s?

A $5.035 \leq s < 5.045$

B $5.03 \leq s < 5.05$

C $5.039 \leq s < 4.041$

D $5 \leq s < 5.1$

Correct Answer: A B C D

Explanation:

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Having been rounded to 1 significant figure, a score (s) is given as 300.

Which of the following gives the correct error interval for s?

A $299.5 \leq s < 300.5$

B $299 \leq s < 301$

C $295 \leq s < 305$

D $250 \leq s < 350$

Correct Answer: A B C D

Explanation:

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A score (s) is recorded as 90.

The error interval of s is: $89.5 \leq s < 90.5$

s could have been rounded to:

A The nearest ten

B One significant figure

C The nearest whole number

D One decimal place

Correct Answer: A B C D

Explanation:

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A score (s) is recorded as 0.7.

The error interval of s is: $0.65 \leq s < 0.75$

s could have been rounded to:

A The nearest ten

B Two decimal places

C The nearest whole number

D One decimal place

Correct Answer: A B C D

Explanation:

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