ALBERTA MATH 20-2 · UNIT 6 · 10 QUESTIONS

Statistical Reasoning — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **In a course, homework is worth 20% of the final grade and tests are worth 80%. A student earns 90% on homework and 75% on tests. The student's final grade is**

- **A** 82.5%
- **B** 80%
- **C** 78%
- **D** 76%

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2 **Which of the following data sets has a standard deviation of 0?**

- **A** 7, 7, 7, 7
- **B** 6, 7, 8, 9
- **C** 5, 10, 5, 10
- **D** 1, 2, 3, 4

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3 **The graph shows five values. The population standard deviation of the values, to the nearest hundredth, is _____**

ANSWER _____

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4 **Exam scores are normally distributed with a mean of 60 and a standard deviation of 4. The percentage of scores between 52 and 68 is approximately**

- A 68%
- B 81.5%
- C 99.7%
- D 95%

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5 **A gymnast scores 45 on an event where the mean score is 52 and the standard deviation is 7. The gymnast's z-score is**

- A -1
- B 1
- C -0.5
- D -7

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6 **A value in a normally distributed data set is 1.5 standard deviations above the mean. If the mean is 120 and the standard deviation is 12, then the value is _____**

ANSWER _____

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7 **Rosa's mark is in the 25th percentile of her class. This means that**

A Rosa scored in the top 25% of her class

B 25% of the scores are less than or equal to Rosa's mark

C Rosa's mark was 25%

D Rosa scored higher than 75% of her class

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8 **The mean of four numbers is 20. Three of the numbers are 14, 22, 26. The fourth number is**

A 16

B 20

C 18

D 24

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9 **A trail mix is made from 3 kg of nuts that cost 12 dollars per kilogram and 2 kg of dried fruit that cost 21 dollars per kilogram. The weighted mean cost, in dollars per kilogram, to the nearest tenth, is _____**

ANSWER _____

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10 **The lengths of bolts produced by a machine are normally distributed with a mean of 300 mm and a standard deviation of 20 mm. The percentage of bolts longer than 340 mm is approximately**

A 5%

B 16%

C 97.5%

D 2.5%

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ANSWER KEY

1.	C	**5.**	A	**9.**	15.6
2.	A	**6.**	138	**10.**	D
3.	2.83	**7.**	B		
4.	D	**8.**	C		

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