ONTARIO MATHEMATICS OF DATA MANAGEMENT, GRADE 12, UNIVERSITY PREPARATION (MDM4U) · UNIT D · 25 QUESTIONS

Statistical Analysis — 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 **A correlation coefficient of 0.9 indicates which type of relationship?**

- A weak positive
- B strong negative
- C strong positive
- D no relationship

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2 **A line of best fit passes through (0, 0) and (2, 4) Its slope is**

- A 2
- B 3
- C 1
- D 4

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3 **A value of 120 in a distribution with mean 100 and standard deviation 10 has z score**

- A 3
- B 1
- C 2
- D 0

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4 **If the standard deviation is 7 the variance is**

- A 52
- B 7
- C 14
- D 49

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5 **The mean of 4,6,8 is**

A 8

B 4

C 10

D 6

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6 **The standard deviation of the data set 10,10,10 is**

A 2

B 5

C 0

D 11

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7 **The variance of a data set is the square of its standard deviation. If the standard deviation is 2 the variance is**

- A 6
- B 2
- C 4
- D 15

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8 **A correlation coefficient of -0.9 indicates which type of relationship?**

- A weak negative
- B strong positive
- C no relationship
- D strong negative

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9 **Correlation does not imply causation. This statement is**

- A true
- B false
- C unknown
- D sometimes

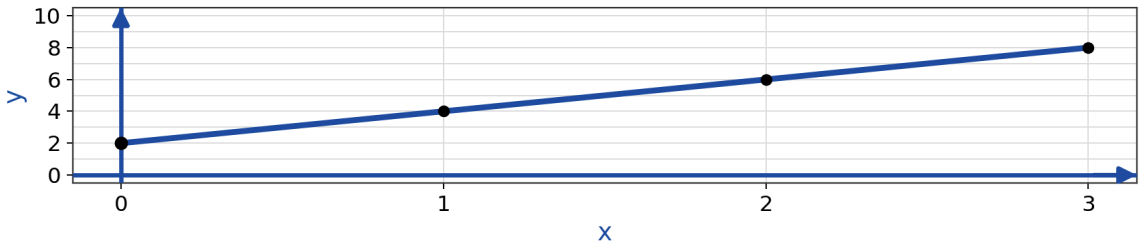
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10 **If the standard deviation of a data set is 0, then all values in the data set are equal. This statement is**

- A false
- B unknown
- C sometimes
- D true

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11 **The scatter plot trend line passes through the points shown. The value at x equal to 2 is Figure 1**



- **A** 6
- **B** 4
- **C** 8
- **D** 2

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12 **A correlation coefficient of 0.8 indicates which type of relationship?**

- **A** weak positive
- **B** strong positive
- **C** strong negative
- **D** no relationship

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13 **A line of best fit passes through (0, 1) and (2, 5) Its slope is**

- A 3
- B 1
- C 2
- D 4

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14 **A value of 55 in a distribution with mean 50 and standard deviation 5 has z score**

- A 2
- B 1
- C 0
- D 12

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15 **If the standard deviation is 9 the variance is**

A 84

B 81

C 9

D 18

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16 **The mean of 10,20,30,40 is**

A 27

B 23

C 29

D 25

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17 The standard deviation of the data set 0,20 is

- A 12
- B 10
- C 15
- D 0

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18 The variance of a data set is the square of its standard deviation. If the standard deviation is 3 the variance is

- A 11
- B 3
- C 6
- D 9

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19 **A correlation coefficient of 0.5 indicates a strong or weak, positive or negative relationship? It is The coefficient is positive.**

- A weak positive
- B strong negative
- C moderate positive
- D no relationship

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20 **A line of best fit passes through (0, 0) and (3, 9) Its slope is**

- A 4
- B 2
- C 3
- D 6

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21 **A value of 100 in a distribution with mean 80 and standard deviation 10 has z score**

- A 3
- B 1
- C 0
- D 2

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22 **If the standard deviation is 11 the variance is**

- A 124
- B 11
- C 121
- D 22

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23 The mean of 2,4,6,8,10 is

- A 8
- B 4
- C 6
- D 10

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24 The standard deviation of the data set 5,15 is

- A 7
- B 10
- C 5
- D 0

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25 **The variance of a data set is the square of its standard deviation. If the standard deviation is 4 the variance is**

A 16

B 18

C 4

D 8

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ANSWER KEY

1.	C	**10.**	D	**19.**	C
2.	A	**11.**	A	**20.**	C
3.	C	**12.**	B	**21.**	D
4.	D	**13.**	C	**22.**	C
5.	D	**14.**	B	**23.**	C
6.	C	**15.**	B	**24.**	C
7.	C	**16.**	D	**25.**	A
8.	D	**17.**	B		
9.	A	**18.**	D		

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