Quiz3: review-math

Due Aug 29 at 11:58pm **Points** 9 **Questions** 9 **Time Limit** 15 Minutes **Allowed Attempts** 2

Instructions

This quiz is based on all the content of reviewing math knowledge.

Please review **ALL** the content before taking the exam.

You will be given **two** attempts and the **highest** score will be recorded.

Attempt History

	Attempt	Time	Score
KEPT	**Attempt 2**	less than 1 minute	9 out of 9
LATEST	**Attempt 2**	less than 1 minute	9 out of 9
	Attempt 1	6 minutes	8 out of 9

Score for this attempt: **9** out of 9
Submitted Aug 29 at 11:32pm
This attempt took less than 1 minute.

Question 1

1 / 1 pts

Which of the following is not a scalar value?

- 10
- 3.5
- 7.8
- (1,2)

Correct!

Question 2

1 / 1 pts

The vector (1, 1) is a unit vector.

- True
- False

Correct!

Question 3

1 / 1 pts

What is correct about the following matrix operation?

$\begin{pmatrix}2\\3\end{pmatrix} + \begin{pmatrix}7 & 5\\8 & 9\end{pmatrix}$

- This operation is invalid
- The result is a column vector
- The result is a 2 x 2 matrix

Correct!

Question 4

1 / 1 pts

What is correct about the result of the following matrix operation?

$$\binom{2}{2} \cdot (3 \quad 4)$$

- The operation is invalid.
- The result is a number 14

Correct!

- The result is a 2 x 2 matrix.

Question 5

1 / 1 pts

For the function $y + x^2 + z^3 + 10$, which of the following is incorrect?

- We can calculate its partial directive with respect to x
- We can calculate its gradient

Correct!

- We can calculate its direvative
- Its gradient is a vector with three elements

Question 6

1 / 1 pts

The expected value (or mean) of a discrete random variable is the probability-weighted average of all its possible values

Correct!

- True
- False

Question 7

1 / 1 pts

About standard deviation (SD), which of the following statement is wrong?

- The standard deviation (SD) is a measure of the amount of variation or dispersion of a set of values.
- A low standard deviation indicates that the values tend to be close to the mean of the set.

Correct!

- A high standard deviation indicates that the values are spread out over a narrower range.

Question 8

1 / 1 pts

A random variable following a normal distribution is a continuous variable.

Correct!

- (●) True
- ( ) False

Question 9

1 / 1 pts

The probability density of the standard Gaussian distribution has zero mean and unit variance.

Correct!

- (●) True
- ( ) False

Quiz Score: **9** out of 9