BRITISH COLUMBIA FOUNDATIONS OF MATHEMATICS 12 (MFOM-12) · UNIT B · 10 QUESTIONS

Advanced Functions and Regression — 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 **The graph shows $y = 2^{-x}$. The value of y at the point P is**

- A 0.25
- B 0.5
- C 1
- D 2

Understand It with Pulse | Flag a mistake

2 **A line of best fit is y = 3x - 2. The predicted value of y when x = 7 is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A correlation coefficient of 0.05 shows**

- A a strong positive correlation
- B a strong negative correlation
- C almost no linear correlation
- D a perfect negative correlation

Understand It with Pulse | Flag a mistake

4 **A quadratic model is $y = 2x^2 + 1$. The predicted value when $x = 3$ is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **If $\log_2 x = 6$, then the value of x is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **An amount of 100 dollars grows by 5 percent per year, compounded. After 2 years, the amount, in dollars, is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **The midline of y = 3 + 2 sin x is**

A y = 0

B y = 2

C y = 3

D y = 5

Understand It with Pulse | Flag a mistake

8 **The degree of $f(x) = 5x^3 - x^2 + 4$ is**

- **A** 2
- **B** 3
- **C** 4
- **D** 5

Understand It with Pulse | Flag a mistake

9 **For a line of best fit with a negative slope, as x increases, y tends to**

- **A** increase
- **B** decrease
- **C** stay the same
- **D** reach zero at once

Understand It with Pulse | Flag a mistake

10 **The graph shows $y = x^2 - 2x$. The graph crosses the x-axis at**

- **A** x = 0 and x = 2
- **B** x = 0 and x = -2
- **C** x = 1 only
- **D** x = -1 and x = 1

Understand It with Pulse **Flag a mistake**

ANSWER KEY

1.	B	**5.**	64	**9.**	B
2.	19	**6.**	110.25	**10.**	A
3.	C	**7.**	C		
4.	19	**8.**	B		

© 2026 Brett Robbins. All Rights Reserved.