MISSOURI ALGEBRA 2 · UNIT 1 · 10 QUESTIONS

Functions and Graphs — 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 **Let f(x) = x + 1 for x < 2 and f(x) = 2x - 3 for x ≥ 2. The value of f(2) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **The inverse of f(x) = 5x - 10 is**

A $f^{-1}(x) = \frac{x + 10}{5}$

B $f^{-1}(x) = 5x + 10$

C $f^{-1}(x) = \frac{x}{5} - 10$

D $f^{-1}(x) = \frac{x - 10}{5}$

Understand It with Pulse | Flag a mistake

3 The point (6, 3) lies on the graph of y = f(x). The image of this point on the graph of y = f(2x) is

- A (6, 6)
- B (3, 6)
- C (12, 3)
- D (3, 3)

Understand It with Pulse | Flag a mistake

4 The average rate of change of f(x) = 3x + 2 on the interval 0 ≤ x ≤ 5 is

- A 17
- B 2
- C 3
- D 5

Understand It with Pulse | Flag a mistake

5 **The graph below shows y = 2x + 1. The y-intercept of the graph is**

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

Understand It with Pulse | Flag a mistake

6 **The function $f(x) = x^2$ is**

- A even
- B neither even nor odd
- C both even and odd
- D odd

Understand It with Pulse | Flag a mistake

7 The vertex of $y = |x + 1| - 2$ is

- A (-1, -2)
- B (1, 2)
- C (1, -2)
- D (-1, 2)

Understand It with Pulse | Flag a mistake

8 The domain of $f(x) = \sqrt{4 - x}$ is

- A $x < 4$
- B $x \geq 4$
- C $x \leq 4$
- D $x > 4$

Understand It with Pulse | Flag a mistake

9 **The larger solution of $|2x - 1| = 5$ is**

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

Understand It with Pulse | Flag a mistake

10 **If $f(x) = x^2 - 2x$, then an expression for $f(a + 1)$ is**

- **A** $a^2 + 1$
- **B** $a^2 - 2a - 1$
- **C** $a^2 + 2a + 1$
- **D** $a^2 - 1$

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	1	**5.**	A	**9.**	C
2.	A	**6.**	A	**10.**	D
3.	D	**7.**	A		
4.	C	**8.**	C		

© 2026 Brett Robbins. All Rights Reserved.