MANITOBA APPLIED MATHEMATICS 40S · UNIT D · 25 QUESTIONS

Relations and Functions — 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 vertex of the parabola $f(x) = 2x^2 - 8x + 3$ has x coordinate**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **Let $f(x) = 4x + 5$ and $g(x) = 3x + 5$. The value of $f(g(4))$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Let $f(x) = 5x + 1$. The inverse function at 16 is**

ANSWER _____

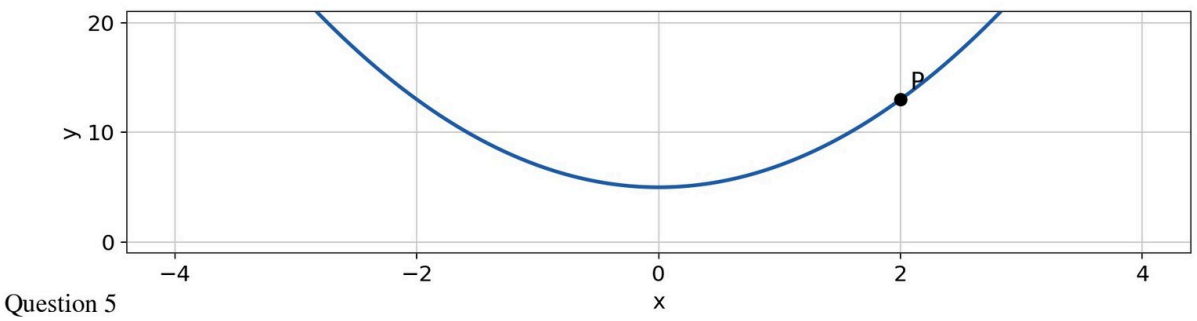
Understand It with Pulse | Flag a mistake

4 **Evaluate 2×2^3 . The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **The graph shows y = 2x + 5 . The value of f(2) is**



Question 5

The graph shows $y = 2x + 5$. The value of $f(2)$ is

ANSWER

Understand It with Pulse | Flag a mistake

6 **Evaluate f(x) = a x² + b x + c when a = 1 , b = 5 , c = 1 , and x = 4 . The result is**

ANSWER

Understand It with Pulse | Flag a mistake

7 **The vertex of the parabola f(x) = 2x² -12x + 3 has x coordinate**

ANSWER

Understand It with Pulse | Flag a mistake

8 **Let f(x) = 2x + 5 and g(x) = 3x + 4 . The value of f(g(4)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **Let f(x) = 6x + 7 . The inverse function at 37 is**

ANSWER _____

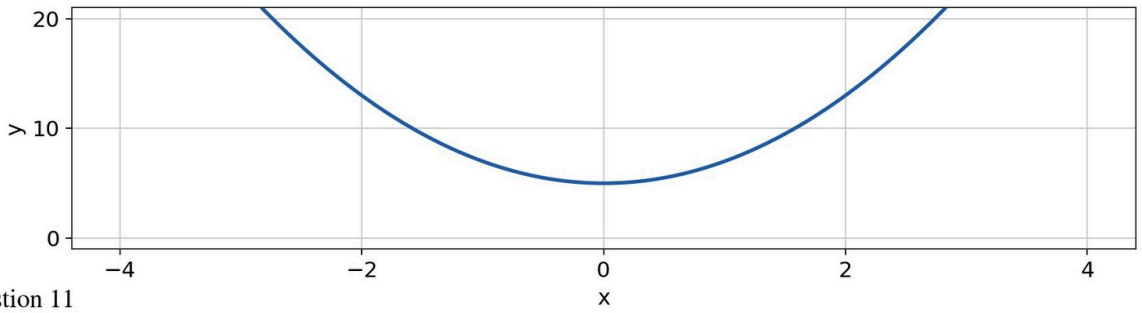
Understand It with Pulse | Flag a mistake

10 **Evaluate 4×2^3 . The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **The graph shows y = 2x + 5 . The value of f(4) is**



Question 11

The graph shows $y = 2x + 5$. The value of $f(4)$ is

ANSWER

Understand It with Pulse | Flag a mistake

12 **Evaluate f(x) = a x² + b x + c when a = 1 , b = 1 , c = 1 , and x = 2 . The result is**

ANSWER

Understand It with Pulse | Flag a mistake

13 **The vertex of the parabola f(x) = 2x² -16x + 3 has x coordinate**

ANSWER

Understand It with Pulse | Flag a mistake

14 **Let f(x) = 4x + 5 and g(x) = 3x + 3 . The value of f(g(4)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **Let f(x) = 2x + 4 . The inverse function at 18 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **The point where a graph crosses the x axis is the**

A y intercept

B vertex

C origin

D x intercept

Understand It with Pulse | Flag a mistake

17 **The highest or lowest point of a parabola is the**

A vertex

B intercept

C axis

D root

Understand It with Pulse | Flag a mistake

18 **The line that divides a parabola into two equal halves is the**

A directrix

B axis of symmetry

C asymptote

D tangent

Understand It with Pulse | Flag a mistake

19 **A triangle with all sides equal is**

A isosceles

B scalene

C equilateral

D right

Understand It with Pulse | Flag a mistake

20 **A triangle with two sides equal is**

A equilateral

B scalene

C obtuse

D isosceles

Understand It with Pulse | Flag a mistake

21 **A triangle with no sides equal is**

A scalene

B isosceles

C equilateral

D right

Understand It with Pulse | Flag a mistake

22 **The longest side of a right triangle is the**

A adjacent

B hypotenuse

C opposite

D leg

Understand It with Pulse | Flag a mistake

23 **In a right triangle, the side opposite the right angle is the**

- A adjacent
- B opposite side
- C hypotenuse
- D base

Understand It with Pulse | Flag a mistake

24 **The sum of the interior angles of a triangle is**

- A 90 degrees
- B 270 degrees
- C 360 degrees
- D 180 degrees

Understand It with Pulse | Flag a mistake

25 **The sum of the interior angles of a quadrilateral is**

A 360 degrees

B 180 degrees

C 270 degrees

D 540 degrees

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	2	**10.**	32	**19.**	C
2.	73	**11.**	37	**20.**	D
3.	3	**12.**	7	**21.**	A
4.	16	**13.**	4	**22.**	B
5.	13	**14.**	65	**23.**	C
6.	37	**15.**	7	**24.**	D
7.	3	**16.**	D	**25.**	A
8.	37	**17.**	A		
9.	5	**18.**	B		

© 2026 Brett Robbins. All Rights Reserved.