MANITOBA INTRODUCTION TO APPLIED AND PRE-CALCULUS MATHEMATICS 20S · UNIT E · 25 QUESTIONS

Relations, Functions and Linear 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 **Evaluate $f(x) = a\,x^2 + b\,x + c$ when $a = 1$, $b = 5$, $c = 1$, and $x = 4$. The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **Evaluate 4×2^3. The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

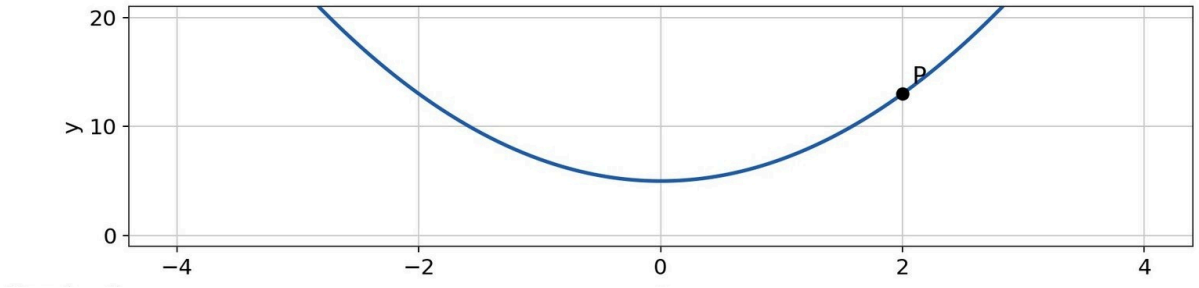
Understand It with Pulse | Flag a mistake

4 **Let f(x) = 6x + 7 . The inverse function at 61 is**

ANSWER

Understand It with Pulse | Flag a mistake

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



ANSWER

Understand It with Pulse | Flag a mistake

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

ANSWER

Understand It with Pulse | Flag a mistake

7 **A polygon with six sides is a**

A hexagon

B pentagon

C octagon

D decagon

Understand It with Pulse | Flag a mistake

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

A equilateral

B isosceles

C scalene

D right

Understand It with Pulse | Flag a mistake

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

A isosceles

B equilateral

C scalene

D right

Understand It with Pulse | Flag a mistake

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

A equilateral

B isosceles

C scalene

D obtuse

Understand It with Pulse | Flag a mistake

11 **An angle measuring more than 90 degrees but less than 180 degrees is an**

A acute angle

B obtuse angle

C right angle

D reflex angle

Understand It with Pulse | Flag a mistake

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

A hypotenuse

B adjacent

C opposite side

D base

Understand It with Pulse | Flag a mistake

13 **In the expression 3x plus 5, the number 3 is the**

A constant

B coefficient

C variable

D solution

Understand It with Pulse | Flag a mistake

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

A adjacent

B opposite

C leg

D hypotenuse

Understand It with Pulse | Flag a mistake

15 **Evaluate $f(x) = a\,x^2 + b\,x + c$ when $a = 1$, $b = 1$, $c = 1$, and $x = 2$. The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **Evaluate 2×2^3 . The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

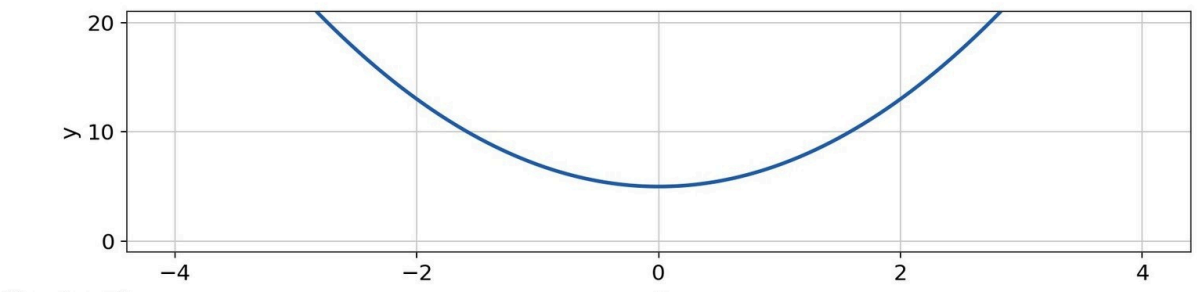
Understand It with Pulse | Flag a mistake

18 **Let $f(x) = 2x + 4$. The inverse function at 10 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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



ANSWER

Understand It with Pulse | Flag a mistake

20 The vertex of the parabola $f(x) = 2x^2 - 16x + 3$ has x coordinate

ANSWER

Understand It with Pulse | Flag a mistake

21 Evaluate $f(x) = a\,x^2 + b\,x + c$ when a = 3 , b = 3 , c = 7 , and x = 3 . The result is

ANSWER

Understand It with Pulse | Flag a mistake

22 Evaluate 5×2^2 . The result is

ANSWER

Understand It with Pulse | Flag a mistake

23 **Let f(x) = 2x + 5 and g(x) = 3x + 6 . The value of f(g(4)) is**

ANSWER _____

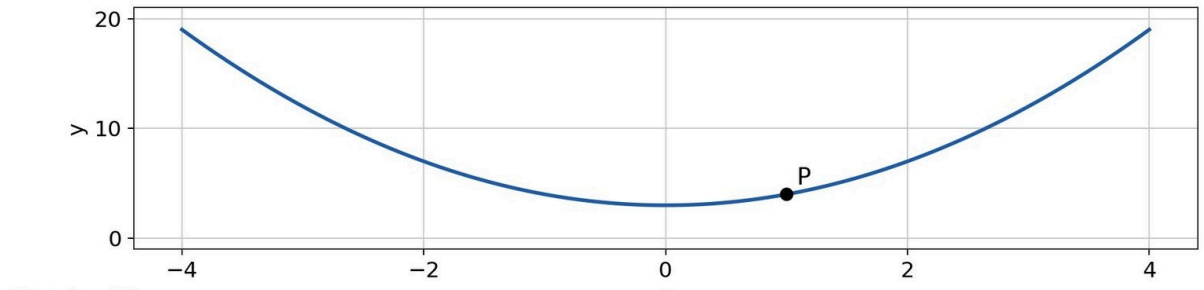
Understand It with Pulse | Flag a mistake

24 **Let f(x) = 3x + 9 . The inverse function at 21 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **The graph shows y = 1x + 3 . The value of f(1) is**



ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	37	**10.**	B	**19.**	37
2.	32	**11.**	B	**20.**	4
3.	37	**12.**	A	**21.**	43
4.	9	**13.**	B	**22.**	20
5.	13	**14.**	D	**23.**	41
6.	3	**15.**	7	**24.**	4
7.	A	**16.**	16	**25.**	4
8.	A	**17.**	65		
9.	C	**18.**	3		

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