PRINCE EDWARD ISLAND PRE-CALCULUS 11 · UNIT C

Quadratic Functions — Practice Test

Prince Edward Island Pre-Calculus 11 • 25 questions

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 **For the quadratic in vertex form $y = (x - 2)^2 + 3$ what is the y coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **For the quadratic $y = 1x^2 + 4x + 4$ what is the discriminant**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **For the quadratic $y = (x - 1)(x - 2)$ what is the larger root**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **For the quadratic y = (x - 2)(x - 3) what is the x coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **The graph of $y = 2x^2$ is**

A narrower than $y = x^2$

B wider than $y = x^2$

C a line

D shifted right

Understand It with Pulse | Flag a mistake

6 **A quadratic function is a polynomial of degree**

- A 1
- B 3
- C 2
- D 0

Understand It with Pulse | Flag a mistake

7 **A quadratic that opens upward and has vertex above the x axis has**

- A no real roots
- B two real roots
- C one real root
- D a maximum

Understand It with Pulse | Flag a mistake

8 **Completing the square rewrites a quadratic in**

A vertex form

B factored form

C linear form

D standard form only

Understand It with Pulse | Flag a mistake

9 **Factoring $x^2 - 9$ gives**

A $(x - 9)(x + 9)$

B $(x - 3)(x - 3)$

C $(x - 3)(x + 3)$

D $(x + 9)(x - 9)$

Understand It with Pulse | Flag a mistake

10 **Factoring $x^2 + 5x + 6$ gives**

- A $(x + 1)(x + 6)$
- B $(x - 2)(x - 3)$
- C $(x + 5)(x + 6)$
- D $(x + 2)(x + 3)$

Understand It with Pulse | Flag a mistake

11 **If the discriminant is negative, the quadratic has**

- A no real roots
- B two real roots
- C one real root
- D three roots

Understand It with Pulse | Flag a mistake

12 **If the discriminant is positive, the quadratic has**

A one repeated root

B no real roots

C two distinct real roots

D no roots

Understand It with Pulse | Flag a mistake

13 **If the discriminant is zero, the quadratic has**

A two distinct roots

B no real roots

C two complex roots

D one repeated real root

Understand It with Pulse | Flag a mistake

14 The axis of symmetry of $y = (x - 3)^2$ plus 1 is

- A $x = 1$
- B $x = -3$
- C $y = 1$
- D $x = 3$

Understand It with Pulse | Flag a mistake

15 The leading coefficient of $y = -3x^2 + x$ is

- A 3
- B 1
- C 0
- D -3

Understand It with Pulse | Flag a mistake

16 **The maximum value of y = negative (x + 1)² plus 6 is**

A 1

B 6

C -1

D 0

Understand It with Pulse | Flag a mistake

17 **For the quadratic in vertex form y = (x - 1)² + 5 what is the y coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **For the quadratic y = 1x² + 6x + 9 what is the discriminant**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **For the quadratic y = (x - 2)(x - 1) what is the larger root**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **For the quadratic y = (x - 1)(x - 4) what is the x coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **The graph of $y = \frac{1}{2} x^2$ is**

A narrower than $y = x^2$

B wider than $y = x^2$

C a line

D shifted left

Understand It with Pulse | Flag a mistake

22 **For the quadratic in vertex form $y = (x - 3)^2 + 1$ what is the y coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **For the quadratic $y = 2x^2 + 4x + 2$ what is the discriminant**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **For the quadratic $y = (x - 1)(x - 5)$ what is the larger root**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **For the quadratic $y = (x - 3)(x - 5)$ what is the x coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	3	**10.**	D	**19.**	2
2.	0	**11.**	A	**20.**	2.50
3.	2	**12.**	C	**21.**	B
4.	2.50	**13.**	D	**22.**	1
5.	A	**14.**	D	**23.**	0
6.	C	**15.**	D	**24.**	5
7.	A	**16.**	B	**25.**	4.00
8.	A	**17.**	5		
9.	C	**18.**	0		

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