NOVA SCOTIA PRE-CALCULUS 11 · UNIT D · 25 QUESTIONS

Quadratic Equations and Linear and Quadratic Inequalities — 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 **A parabola has vertex at x = 2 . Its axis of symmetry is x equals**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **For x² + 6x + 9 = 0 , the discriminant is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Solve x² - 7x + 6 = 0 . The larger root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Solve x² - 5x + 6 = 0 . The smaller root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **For $x^2 - 5x + 2 = 0$, the product of its roots is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A quadratic opening upward has a**

A Minimum value

B No vertex

C Horizontal axis

D Maximum value

Understand It with Pulse | Flag a mistake

7 **Completing the square for $x^2 + 6x$ gives x plus 3^2 minus**

A 3

B 9

C 36

D 6

Understand It with Pulse | Flag a mistake

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

A $x \times x - 9$

B $x - 3 \times x + 3$

C $x + 3 \times x + 3$

D $x - 9 \times x + 9$

Understand It with Pulse | Flag a mistake

9 **If the discriminant equals zero, a quadratic has**

A No real roots

B One real root repeated

C Infinite roots

D Two distinct roots

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10 **If the discriminant is greater than zero, a quadratic has**

A Two real roots

B No real roots

C No solution

D One real root

Understand It with Pulse | Flag a mistake

11 **If the discriminant is less than zero, a quadratic has**

A One real root

B Three roots

C No real roots

D Two real roots

Understand It with Pulse | Flag a mistake

12 **The graph of a quadratic function is a**

A Line

B Circle

C Hyperbola

D Parabola

Understand It with Pulse | Flag a mistake

13 **A parabola has vertex at x = 3 . Its axis of symmetry is x equals**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **For $x^2 + 4x + 4 = 0$, the discriminant is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **Solve $x^2 - 4x + 4 = 0$. The larger root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **Solve $x^2 - 5x + 4 = 0$. The smaller root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **For $x^2 - 5x + 3 = 0$, the product of its roots is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A parabola has vertex at $x = 4$. Its axis of symmetry is x equals**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **For $x^2 + 10x + 25 = 0$, the discriminant is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **Solve $x^2 - 6x + 5 = 0$. The larger root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **Solve $x^2 - 7x + 10 = 0$. The smaller root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A parabola has vertex at $x = 5$. Its axis of symmetry is x equals**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **For $x^2 + 8x + 16 = 0$, the discriminant is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **Solve $x^2 - 8x + 12 = 0$. The larger root is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **Solve $x^2 - 7x + 12 = 0$. The smaller root is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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