MATHEMATICS 2201 · NEWFOUNDLAND AND LABRADOR

Mathematics 2201

Practice Test

Unit D: Quadratic Functions

25 Questions

Original practice test based on the Newfoundland and Labrador curriculum. Work through each question, then check your answers at the end.

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.

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Question 1

The vertex of $y = (x - 2)^2 + 3$ is

A) $(2, 3)$

B) $(-2, 3)$

C) $(2, -3)$

D) $(-2, -3)$

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Question 2

The axis of symmetry of $y = x^2 + -6x + 1$ is x equals

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Question 3

The smaller x intercept of $y = (x - 5)(x + 1)$ is

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Question 4

The y intercept of $y = x^2 - 2x + 3$ is

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Question 5

Consider the meaning of the term. The graph of a quadratic function is called

A) a parabola

B) a line

C) a hyperbola

D) a circle

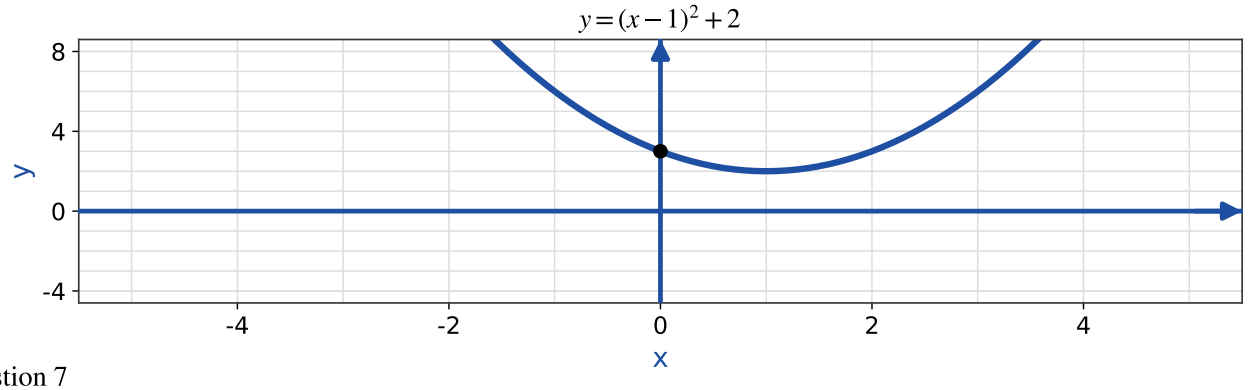
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Question 6

The number of real roots of $1x^2 + -4x + 4 = 0$ is

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Question 7

The parabola shown has vertex $(1,\ 2)$. Its minimum value is

A) 1

B) -2

C) 2

D) 0

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Question 8

The positive root of $x^2 = 64$ is

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Question 9

The maximum value of $y = -x^2 + 4x + -1$ is

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Question 10

Use what the term means. If a quadratic opens upward, its vertex is a

A) maximum

B) minimum

C) y intercept

D) axis of symmetry

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Question 11

The x coordinate of the vertex of $y = x^2 + -8x + 5$ is

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Question 12

The discriminant of $x^2 + 9x + 14 = 0$ is

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Question 13

A ball has height $h = -5t^2 + 30t$ metres . $At\ t = 2$ seconds , its height in metres is

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Question 14

Consider the rule in general. The domain of any quadratic function is

A) x greater than 0 only

B) all real numbers

C) y greater than 0 only

D) integers only

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Question 15

The vertex of $y = (x - 4)^2 + -2$ is

A) $(-4, -2)$

B) $(4, 2)$

C) $(4, -2)$

D) $(-4, 2)$

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Question 16

The axis of symmetry of $y = x^2 + -12x + 1$ is x equals

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Question 17

The smaller x intercept of $y = (x - 3)(x + 4)$ is

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Question 18

The y intercept of $y = x^2 - 2x + -4$ is

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Question 19

Consider the concept in general. The graph of a quadratic function is called

A) a line

B) a hyperbola

C) a parabola

D) a circle

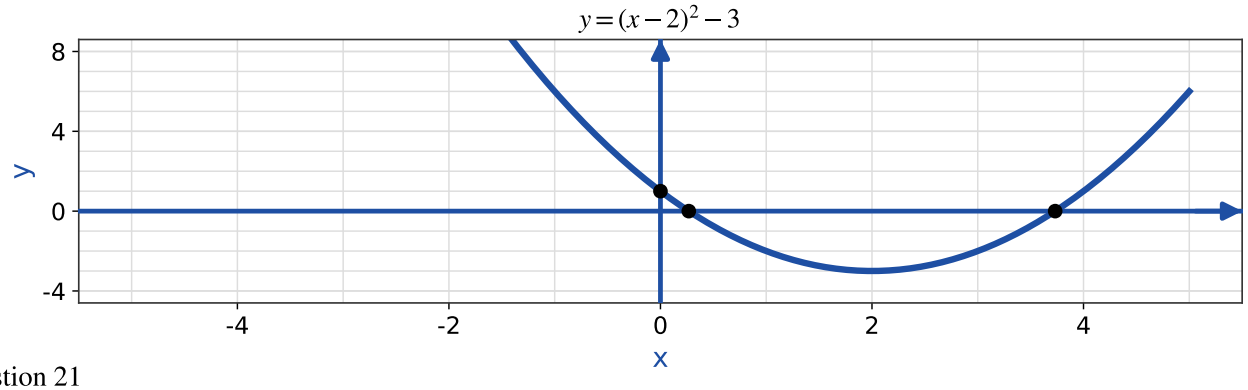
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Question 20

The number of real roots of $1x^2 + 2x + 3 = 0$ is

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Question 21

The parabola shown has vertex $(2, -3)$. Its minimum value is

A) -3

B) 2

C) 3

D) 0

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Question 22

The positive root of $x^2 = 36$ is

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Question 23

The maximum value of $y = -x^2 + 6x + 5$ is

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Question 24

Consider the principle in general. If a quadratic opens upward, its vertex is a

A) maximum

B) y intercept

C) axis of symmetry

D) minimum

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Question 25

The x coordinate of the vertex of $y = x^2 + 6x + 5$ is

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ANSWER KEY

1.	A	**10.**	B	**18.**	-4
2.	3	**11.**	4	**19.**	C
3.	-1	**12.**	25	**20.**	0
4.	3	**13.**	40	**21.**	A
5.	A	**14.**	B	**22.**	6
6.	1	**15.**	C	**23.**	14
7.	C	**16.**	6	**24.**	D
8.	8	**17.**	-4	**25.**	-3
9.	3				

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