NUNAVUT MATHEMATICS 20-1 · UNIT 3

Quadratics — Practice Test

Nunavut Mathematics 20-1 • 10 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 **The discriminant of the equation $5x^2 + 3x - 2 = 0$ is**

- A -31
- B 49
- C 31
- D -49

Understand It with Pulse | Flag a mistake

2 **The graph shown is a parabola. The y -coordinate of its vertex is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Two numbers have a sum of 20. The maximum possible product of the two numbers is**

- **A** 96
- **B** 200
- **C** 50
- **D** 100

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4 **A parabola has vertex (1, -4) and passes through the point (3, 4). Its equation, in standard form, is**

- **A** $y = 2x^2 - 4x + 2$
- **B** $y = x^2 - 2x - 3$
- **C** $y = 2x^2 - 4x - 2$
- **D** $y = 2x^2 + 4x - 2$

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5 **The smaller root of the equation $2x^2 + 5x - 3 = 0$ is**

ANSWER _____

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6 **Expressed in vertex form, $y = -x^2 - 4x + 1$ is**

A $y = -(x - 2)^2 + 5$

B $y = -(x + 2)^2 + 5$

C $y = (x + 2)^2 + 5$

D $y = -(x + 2)^2 - 3$

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7 The length of a rectangle is 3 cm more than its width, and its area is 40 cm². The width of the rectangle, in cm, is

- A 4
- B 8
- C 5
- D 10

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8 The sum of the squares of two consecutive positive integers is 85. The larger of the two integers is

- A 7
- B 6
- C 8
- D 9

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9 **The graph shown is a parabola. Its range is**

- **A** $y \leq -6$
- **B** $y \geq -6$
- **C** $y \geq 6$
- **D** All real numbers

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10 **The roots of the equation $x^2 - 5x + 4 = 0$ are r and s. The value of $r^2 + s^2$ is**

ANSWER _____

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ANSWER KEY

1.	B	**5.**	-3	**9.**	B
2.	7	**6.**	B	**10.**	17
3.	D	**7.**	C		
4.	C	**8.**	A		

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