ALBERTA MATH 20-2 · UNIT 7 · 10 QUESTIONS

Quadratic 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 **The x-intercepts of the graph of y = (x + 1)(x - 7) are**

- A 1 and -7
- B -1 and 7
- C 1 and 7
- D -1 and -7

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2 **The graph shows a quadratic function that crosses the x-axis twice. The vertex of the graph is**

- A (5, -9)
- B (5, 9)
- C (2, 8)
- D (-5, -9)

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3 The area of a rectangular corral, in m^2, is modelled by $A(x) = -2x^2 + 36x$, where x is the width of the corral, in metres. The maximum area of the corral, in m^2, is _____ Record your answer as a whole number.

ANSWER _____

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4 The solutions to the equation $x^2 - 2x - 4 = 0$ are

A $1 \pm \sqrt{3}$

B $2 \pm \sqrt{5}$

C $1 \pm \sqrt{5}$

D $-1 \pm \sqrt{5}$

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5 **The graph shows a parabola. An equation for the parabola in vertex form is**

- **A** $y = (x - 3)^2 + 5$
- **B** $y = -(x + 3)^2 + 5$
- **C** $y = (x - 3)^2 - 5$
- **D** $y = -(x - 3)^2 + 5$

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6 **The equation $x^2 + 6x + 9 = 0$ has**

- **A** two different real solutions
- **B** one real solution
- **C** no real solutions
- **D** three real solutions

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7 **The smaller solution to the equation $2x^2 - 11x + 5 = 0$ is _____ Record your answer as a decimal.**

ANSWER _____

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8 **The x-intercepts of the graph of $y = (x + 1)^2 - 16$ are**

A -5 and 3

B 5 and -3

C -1 and 16

D -4 and 4

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9 **The positive solution to the equation $3x^2 + 2x - 2 = 0$, to the nearest hundredth, is _____**

ANSWER _____

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10 **The minimum value of the function $y = 2x^2 - 12x + 23$ is**

- **A** 3
- **B** 23
- **C** 5
- **D** -5

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ANSWER KEY

1.	B	**5.**	D	**9.**	0.55
2.	A	**6.**	B	**10.**	C
3.	162	**7.**	0.5		
4.	C	**8.**	A		

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