NUNAVUT MATH 20-2 · UNIT 7 · 10 QUESTIONS

# Quadratic Functions — Practice Test

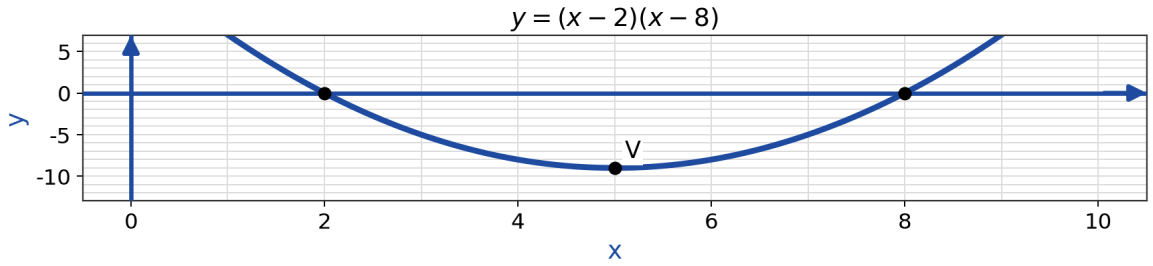
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**1** **The x-intercepts of the graph of y = (x + 1)(x - 7) are**

- 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 m², is modelled by A(x) = -2x² + 36x, where x is the width of the corral, in metres. The maximum area of the corral, in m², is _____ Record your answer as a whole number.**

ANSWER _____

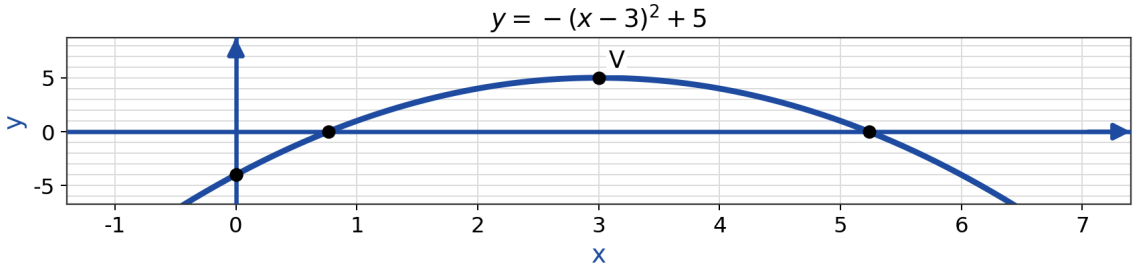
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**4** **The solutions to the equation $x^2 - 2x - 4 = 0$ are**

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

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