ALBERTA MATHEMATICS 10C · UNIT 4 · 10 QUESTIONS

Relations and 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 **A gym charges each member a monthly fee based on the number of classes the member attends. In this relation, the dependent variable is**



A The number of classes attended

B The member

C The monthly fee charged

D The month

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2 **For the function f(x) = (x + 5)(x - 3), the zeros of the function are**

A -5 and 3

B -15

C -5, 3, and -15

D 3 and -15

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3 **If $g(x) = x^2 + 2x - 3$, then the value of g(-4) is ____**

ANSWER _____

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4 **The graph shown gives the temperature in degrees Celsius over time in hours. The rate of change of temperature from 3 h to 8 h is**



A 12° C

B 1.5° C

C 2.4° C

D 3° C

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5 **Which of the following does NOT represent a function?**

A $y = -x + 4$

B {(3, 1), (4, 1), (5, 1), (6, 1)}

C $x^2 + y^2 = 25$

D {(0, 5), (1, 5), (2, 6), (3, 7)}

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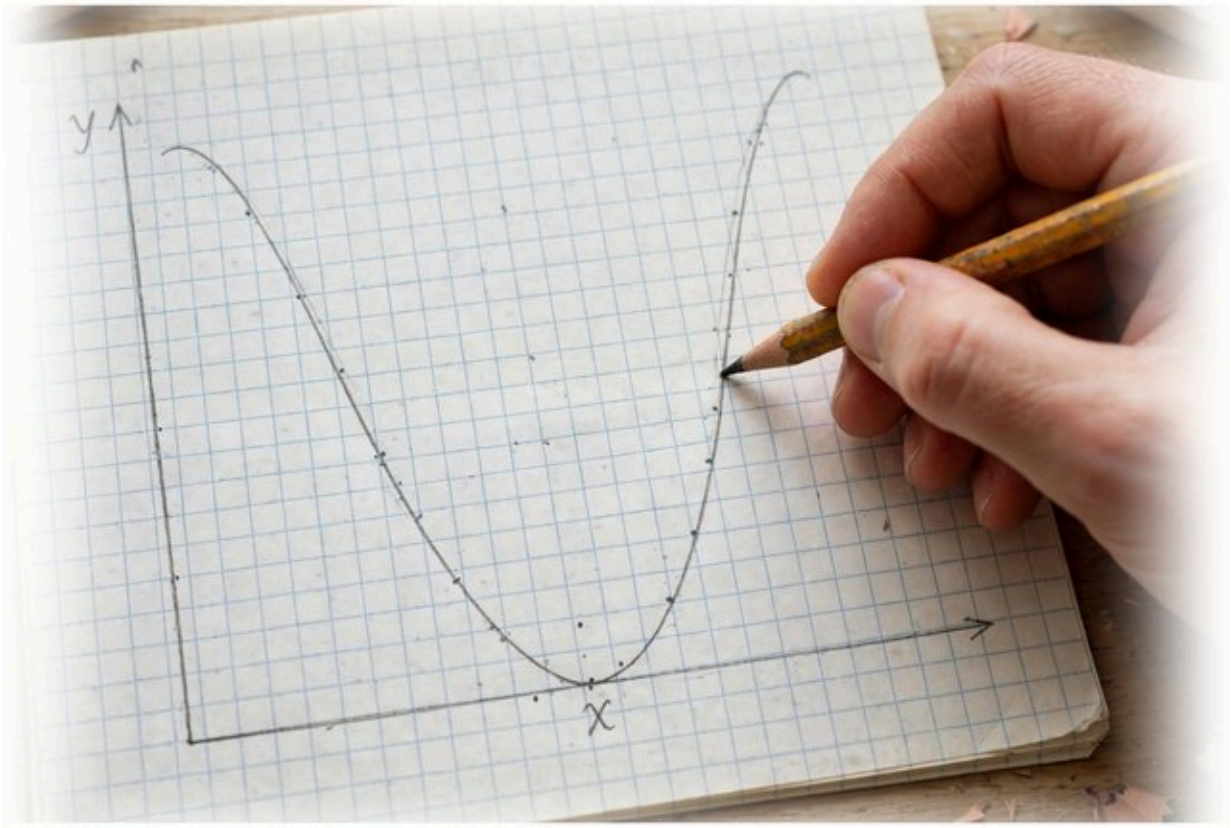
6 **The point (k, 25) lies on the graph of $f(x) = x^2 + 9$. If $k > 0$, then the value of k is ____**



ANSWER _____

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7 **The area A of a square garden is a function of its side length s. The domain of this function is**

A All real numbers

B $s > 0$

C $s < 0$

D $A > 0$

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8 **The graph of function f is shown. The value of f(2) - f(0) is**


Diagram for Question 8

A -6

B 6

C -8

D 8

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9 **If $f(x) = 3x^2 - x$, then the value of $f(2) - f(-1)$ is _____**

ANSWER _____

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10 **For the relation {(-2, 3), (0, 3), (2, 3), (4, 3)}, which statement is true?**

A It is not a function because the output 3 is repeated

B Its domain is {3}

C Its domain and range are the same

D Its range is {3}

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ANSWER KEY

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

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