Arellano University
Juan Sumulong Campus - Junior High School Department
2600 Legarda St. Sampaloc, Manila

PACUCOA Accredited- Level II

SCORE
43

SUMMATIVE QUIZ
Mathematics 9 - Quarter 1
S.Y. 2023 - 2024

Name: _____ **Date:** _____
Grade & Section: _____ **Teacher:** _____

I. KNOWLEDGE

A. Directions: Determine whether each of the following statements is true or false. Write your answer on the space provided.

_____1. The given quadratic equation $-6b^2 - 24b = 10$ is written in standard form.
_____2. The equation $\frac{3}{4}x^2 - 3c + 9$ is a quadratic equation.
_____3. All quadratic equations can be solved by factoring.
_____4. A quadratic equation in the form $x^2 = c$, where $c > 0$, have exactly 2 real solution.
_____5. The equation $m^2 = 9$ has imaginary roots.

B. Directions: Determine whether the given equation is a quadratic equation or not. If yes, complete the table by writing the given quadratic equations into its standard form, values of a, b, and c.

Equations	**Standard Form** $(ax^2 + bx + c = 0)$	***a***	***b***	***c***
1. $k^2 - 6k - 72 = 0$				
2. $-4x(x - 1) - 5$				
3. $\frac{5}{6}m - 6^2 = 7$				
4. $9b^2 + 24 = 7$				
5. $0 = 3a^2 - a - 6$				

II. PROCESS & UNDERSTANDING

A. Directions: Find the roots/solutions of the following quadratic equations using factoring. Write your complete solution in your notebook, then attach the photo in this quiz. No solution no corresponding points. *(3 points each)*

1. $(x - 5)(x - 7) = 0$
2. $x^2 + 6x - 72 = 0$
3. $-4m^2 + 16m = 4m$
4. $3x^2 - 5x - 12 = 0$

B. Directions: The following solutions below are the process or solution in solving quadratic equations by extracting the roots. Evaluate the process and find the error/s if any. Write **NO ERROR** on the space provided if there is no error, otherwise encircle the term, or expression that makes the solution wrong. Write the correct one on the space provided. *(3 points each)*

1. _____
$x^2 - 49 = 0 \quad \rightarrow \quad x^2 = 49$
Solutions:
$\sqrt{x^2} = \sqrt{49}$
$x = \pm 7$
Final Answer: $x = 7;\ x = -7$

2. _____
$2.\ 3x^2 + 27 = 0 \quad \rightarrow \quad 3x^2 = -27$
Solutions:
$\frac{3x^2}{3} = \frac{-27}{3}$ dividing both side by the coefficient of x^2
$x^2 = -9$ Simplify
$\sqrt{x^2} = \sqrt{-9}$ Get the square root of both sides
$x = \pm 3$ Solve for x
Final Answer: $x = 3;\ x = -3$

LIVEWORKSHEETS