ARELLANO UNIVERSITY
Junior High School Department

QUIZ 2 IN MATHEMATICS 10
TERM 1
School Year 2026 - 2027

SCORE:
_____
25

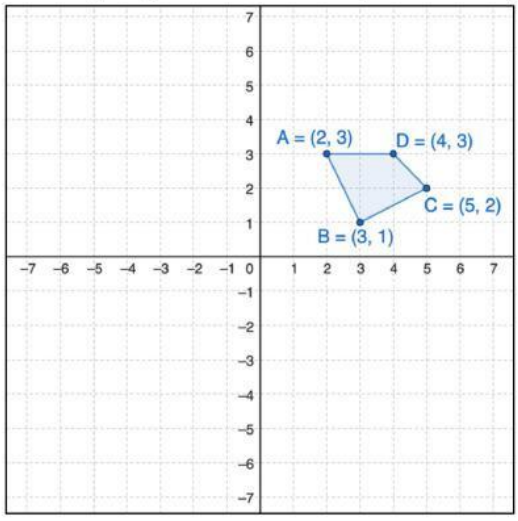
Name: _____ Date: _____
Grade & Section: _____ Teacher: _____

PART I: TRUE OR FALSE: Read each statement carefully. Type TRUE if the statement is correct and FALSE if it is incorrect. (1 point each)

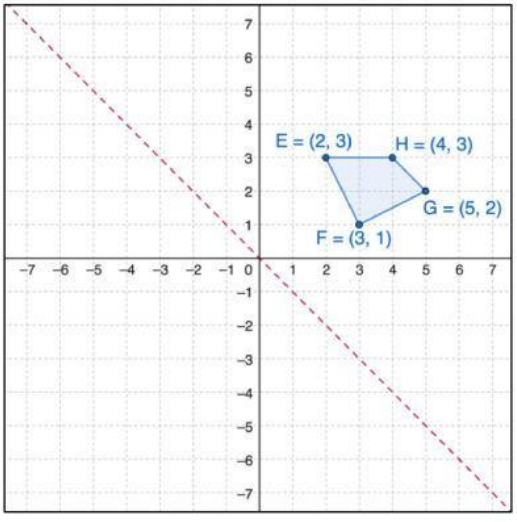
_____ 1. The Cartesian plane is formed by two perpendicular number lines called the x-axis and y-axis.
_____ 2. The y-coordinate tells how far a point is located to the left or right of the origin.
_____ 3. The point (0, 0) is called the origin.
_____ 4. Sliding a figure without turning or flipping it is an example of a translation.
_____ 5. A reflection changes a figure into a mirror image across a center of rotation.
_____ 6. Turning a figure 90° counterclockwise about the origin is an example of a rotation.
_____ 7. A 180° rotation about the origin maps (x, y) to $(-x, -y)$.
_____ 8. For $(q - 4)(q + 2) \geq 0$, the critical points are $q = -2$ and $q = 4$.
_____ 9. If (x, y) is translated by the rule $(x, y) \rightarrow (x + 3, y - 5)$, both coordinates increase by 3.
_____ 10. The inequality $x^2 - 7x + 10 < 0$ has critical points $x = 2$ and $x = 5$.

PART II: A. Apply the transformation, draw the image on the Cartesian plane, and write the ordered pairs of the image.

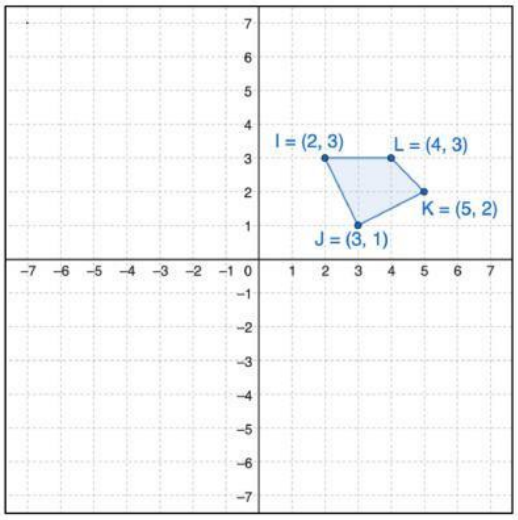
Translate the preimage using the translation rule $(x - 2, y - 2)$
A' (___ , ___)
B' (___ , ___)
C' (___ , ___)
D' (___ , ___)



Reflect the preimage about $y = -x$
E' (___ , ___)
F' (___ , ___)
G' (___ , ___)
H' (___ , ___)

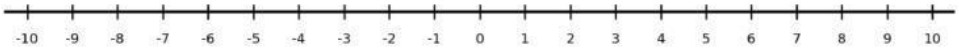


Rotate $180°$
I' (___ , ___)
J' (___ , ___)
K' (___ , ___)
L' (___ , ___)



B. Solving Quadratic Inequalities: For each inequality, write the solution in interval notation and graph the solution on the number line.

1. Solve: $-8 \leq x < 2$
   Interval notation: _____



2. Solve: $x^2 - 5x + 6 < 0$
   Interval notation: _____