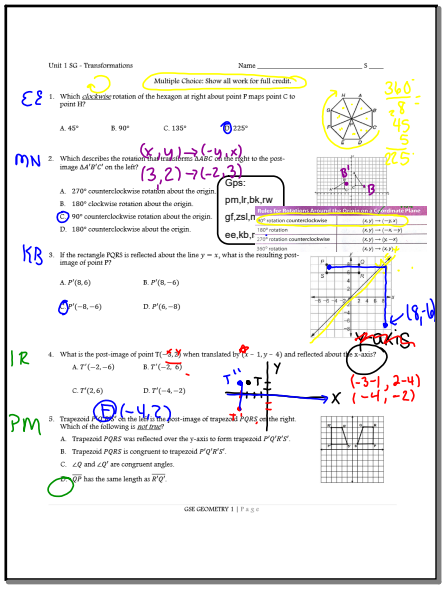


Unit 1 SG - Transformations Name _____ S ____

Multiple Choice: Show all work for full credit.

EE 1. Which clockwise rotation of the hexagon at right about point P maps point C to point H?

A. 45° B. 90° C. 135° D. 225°

MN 2. Which describes the rotation that transforms $\triangle ABC$ at the right to the post-image $\triangle A'B'C'$ on the left?

A. 270° counterclockwise rotation about the origin.
B. 180° clockwise rotation about the origin.
C. 90° counterclockwise rotation about the origin.
D. 180° counterclockwise about the origin.

Gps: pm,lr,bk,rw gf,zsl,n ee,kb,r

Rules for Rotations Around the Origin on a Coordinate Plane

| | |
|---|---|
| 90° rotation counterclockwise | $(x, y) \rightarrow (-y, x)$ |
| 180° rotation | $(x, y) \rightarrow (-x, -y)$ |
| 270° rotation counterclockwise | $(x, y) \rightarrow (y, -x)$ |
| 360° rotation | $(x, y) \rightarrow (x, y)$ |

KB 3. If the rectangle PQRS is reflected about the line $y = x$, what is the resulting post-image of point P?

A. $P'(8, 6)$ B. $P'(8, -6)$
C. $P'(-8, -6)$ D. $P'(6, -8)$

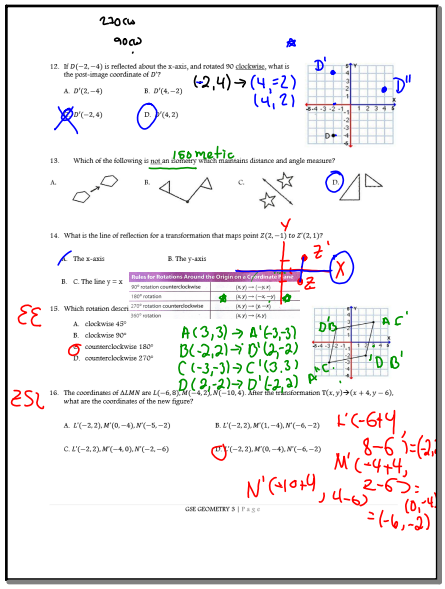
IR 4. What is the post-image of point $T(-2, 3)$ when translated by $(x - 1, y - 6)$ and reflected about the x-axis?

A. $T'(-2, -6)$ B. $T'(-2, 6)$
C. $T'(2, 6)$ D. $T'(-4, -2)$

PM 5. Trapezoid $PQRS$ is on the left in the post-image of trapezoid $PQRS$ on the right. Which of the following is *not true*?

A. Trapezoid $PQRS$ was reflected over the y-axis to form trapezoid $P'Q'R'S'$.
B. Trapezoid $PQRS$ is congruent to trapezoid $P'Q'R'S'$.
C. $\angle Q$ and $\angle Q'$ are congruent angles.
D. $\overline{QP}$ has the same length as $\overline{R'Q'}$.





12. If $D(-2, -4)$ is reflected about the x-axis, and rotated 90 clockwise, what is the post-image coordinate of $D''$?

A. $D'(2, -4)$ B. $D'(4, -2)$
C. $D''(-2, 4)$ D. $D''(4, 2)$

13. Which of the following is not an isometry which maintains distance and angle measure?

A. B. C. D.

14. What is the line of reflection for a transformation that maps point $Z(2, -1)$ to $Z'(2, 1)$?

A. The x-axis B. The y-axis
B. C. The line $y = x$

Rules for Rotations Around the Origin on a Coordinate Plane

| | |
|---|---|
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| 180° rotation | $(x, y) \rightarrow (-x, -y)$ |
| 270° rotation counterclockwise | $(x, y) \rightarrow (y, -x)$ |
| 360° rotation | $(x, y) \rightarrow (x, y)$ |

EE 15. Which rotation descri

A. clockwise 45°
B. clockwise 90°
C. counterclockwise 180°
D. counterclockwise 270°

2SL 16. The coordinates of $\triangle LMN$ are $L(-6, 8)$, $M(-4, 2)$, $N(-10, 4)$. After the transformation $T(x, y) \rightarrow (x + 4, y - 6)$, what are the coordinates of the new figure?

A. $L'(-2, 2), M'(0, -4), N'(-5, -2)$ B. $L'(-2, 2), M'(1, -4), N'(-6, -2)$
C. $L'(-2, 2), M'(-4, 0), N'(-2, -6)$ D. $L'(-2, 2), M'(0, -4), N'(-6, -2)$



Write 5 potential questions you might see on tomorrow's test.

Include an answer key!

Jan 10-1:24 PM