

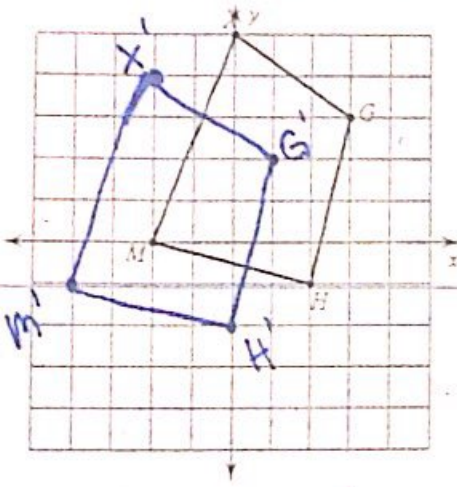
G2 C Level Test Review

Date _____

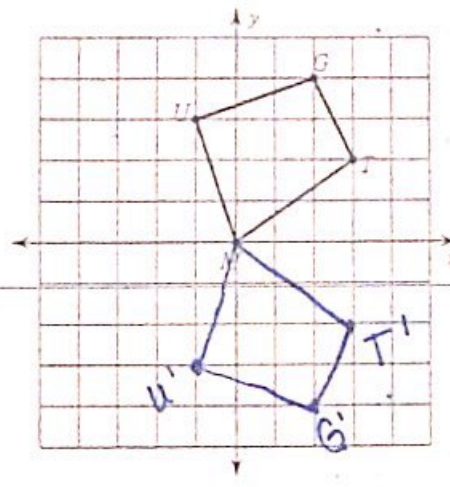
Period _____

Graph the image of the figure using the transformation given.

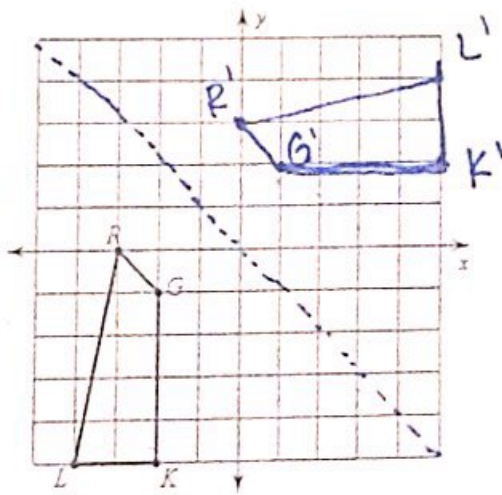
1) translation: 2 units left and 1 unit down



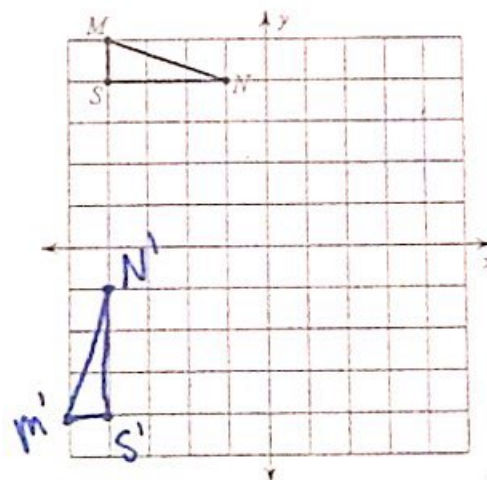
2) reflection across the x-axis



3) reflection across $y = -x$

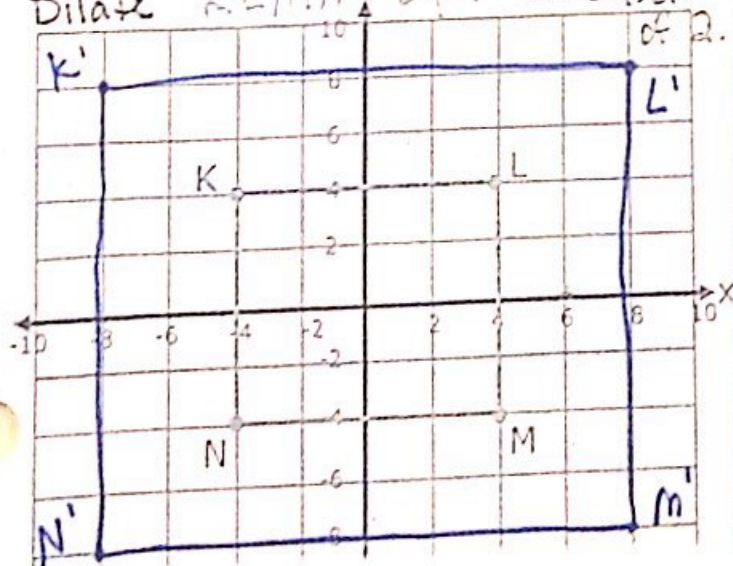


4) rotation 90° counterclockwise about the origin



5) Use the origin as the center of dilation for both 5 and 6.

Dilate $KLMN$ by a scale factor of $\frac{1}{2}$.



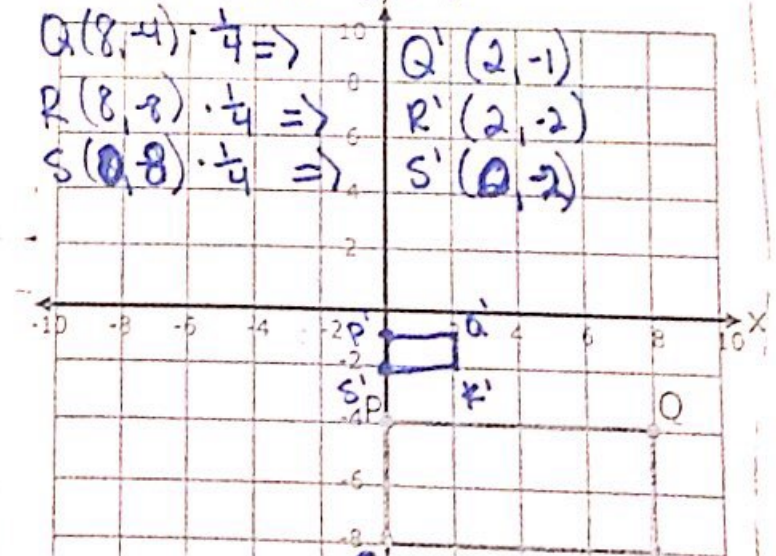
6) Dilate $PQRS$ by a scale factor of $\frac{1}{4}$

$$P(0, -4) \cdot \frac{1}{4} \Rightarrow P'(0, -1)$$

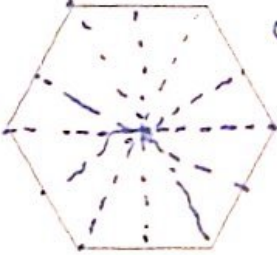
$$Q(8, -4) \cdot \frac{1}{4} \Rightarrow Q'(2, -1)$$


$$R(8, -8) \cdot \frac{1}{4} \Rightarrow R'(2, -2)$$

$$S(0, -8) \cdot \frac{1}{4} \Rightarrow S'(0, -2)$$

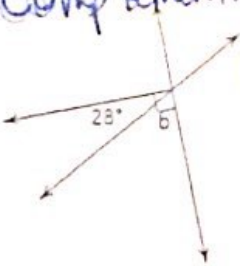


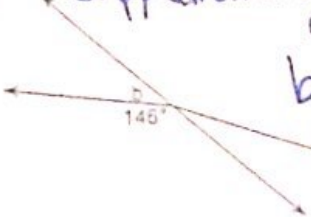
For each shape below, draw all lines of reflectional symmetry and state the smallest degree of rotational symmetry.

7)  Smallest degree of rotational symmetry: $\frac{360}{6} = 60^\circ$

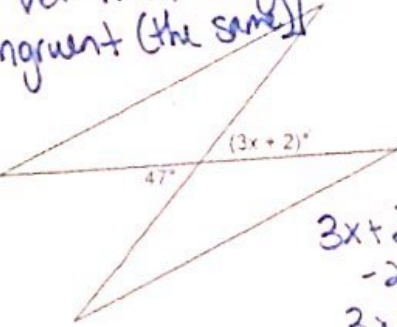
8) 2 lines of reflectional symmetry  Smallest degree of rotational symmetry: $\frac{360}{2} = 180^\circ$

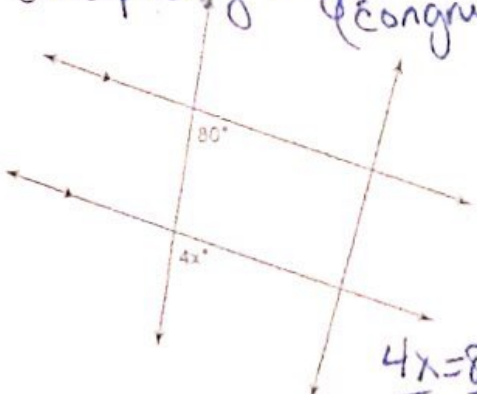
6 lines of reflectional symmetry
Find the measure of angle b.

9) Complementary (add up to 90°)  $90 - 28 = b$
 $b = 62$

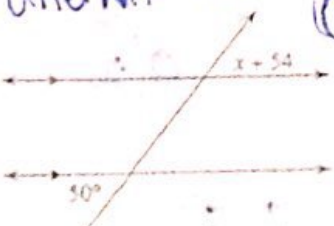
10) Supplementary (add up to 180°)  $b = 180 - 146$
 $b = 34^\circ$

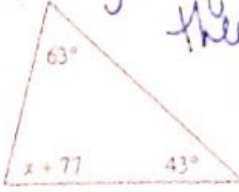
Find the value of x.

11) Vertical angles [congruent (the same)]  $3x + 2 = 47$
 $-2 \quad -2$
 $3x = 45$
 $\frac{3x}{3} = \frac{45}{3}$
 $x = 15$

12) Corresponding angles (congruent)  $4x = 80$
 $\frac{4x}{4} = \frac{80}{4}$
 $x = 20$

Solve for x.

13) Alternate exterior angles (congruent)  $x + 54 = 50$
 $-54 \quad -54$
 $x = -4$

14) triangle angle sum theorem (all angles add up to 180°)  $63 + 43 + x + 77 = 180$
 $x + 183 = 180$
 $-183 \quad -183$
 $x = -3$