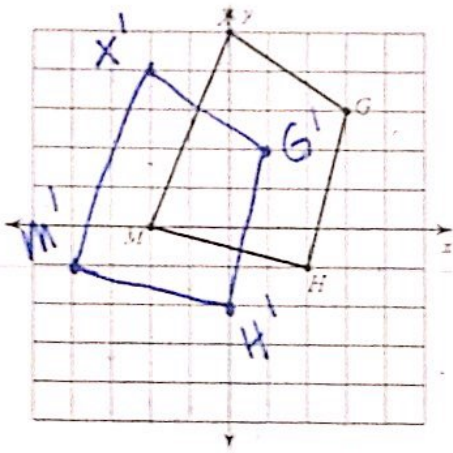


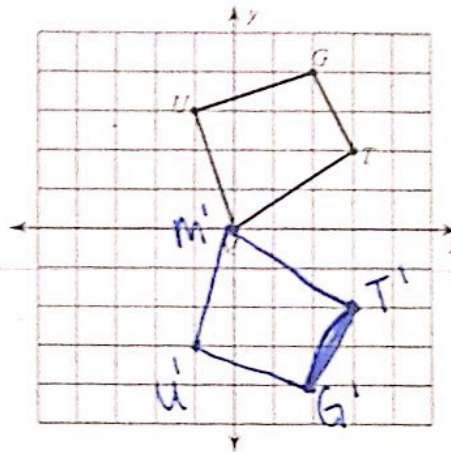
G2 C Level Test Review

Graph the image of the figure using the transformation given.

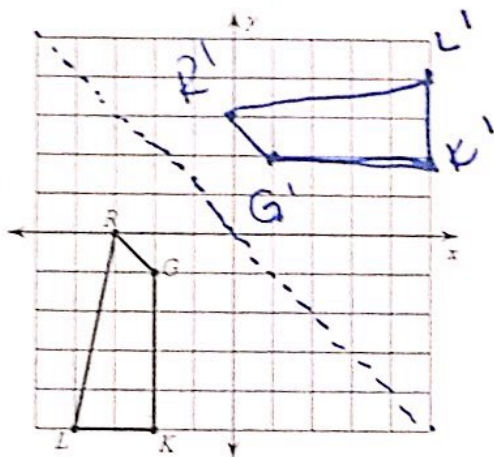
1) translation: 2 units left and 1 unit down



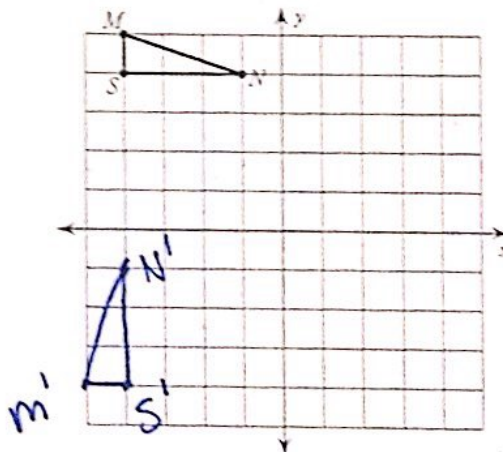
2) reflection across the x-axis



3) reflection across $y = -x$

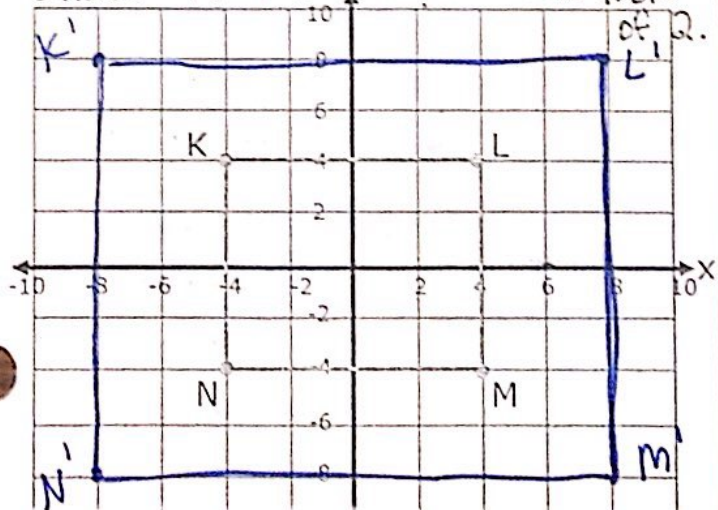


4) rotation 90° counterclockwise about the origin

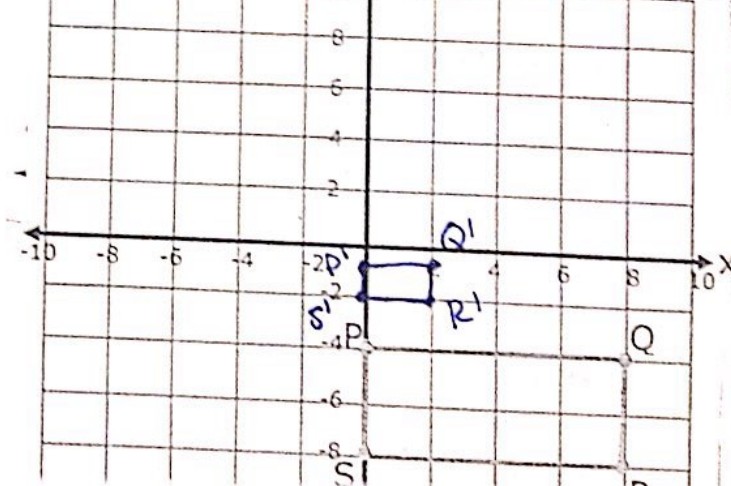


Use the origin as the center of dilation for both 5 and 6.

5) Dilate $KLMN$ by a scale factor of $\frac{1}{4}$.

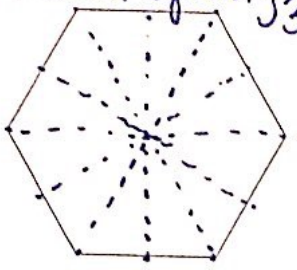


6) Dilate $PQRS$ by a scale factor of $\frac{1}{4}$.
 $P(0, -4) \times \frac{1}{4} = P'(0, -1)$ $R(8, 8) \times \frac{1}{4} = R'(2, 2)$
 $Q(8, -4) \times \frac{1}{4} = Q'(2, -1)$ $S(0, 8) \times \frac{1}{4} = S'(0, 2)$



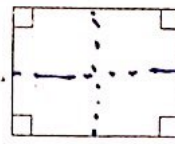
For each shape below, draw all lines of reflectional symmetry and state the smallest degree of rotational symmetry. *Smallest angle of rotational symmetry*

rotational symmetry = $\frac{360}{6} = 60^\circ$



Smallest angle of Rotational symmetry = $\frac{360}{2} = 180^\circ$

8)

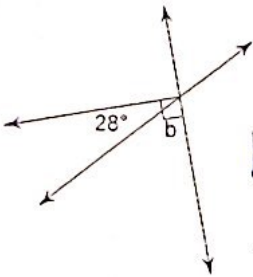


2 lines of reflectional symmetry

6 lines of reflectional symmetry

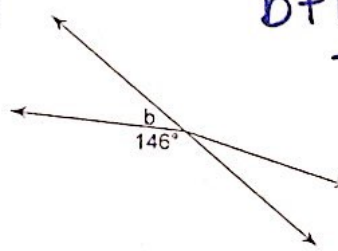
Find the measure of angle b.

9)



$$\begin{aligned} b + 28 &= 90^\circ \\ -28 & -28 \\ \hline b &= 62^\circ \end{aligned}$$

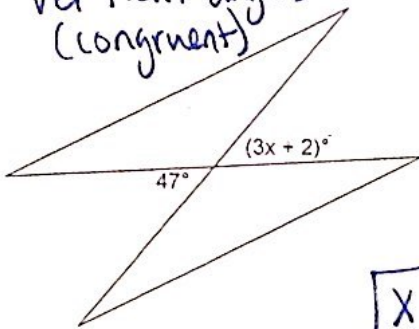
10)



$$\begin{aligned} b + 146 &= 180 \\ -146 & -146 \\ \hline b &= 44^\circ \end{aligned}$$

Find the value of x.

11) *vertical angles (congruent)*

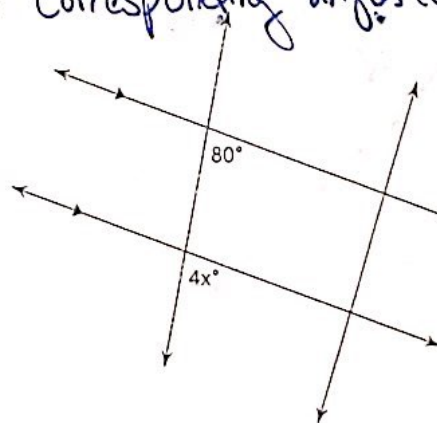


$$\begin{aligned} 3x + 2 &= 47 \\ -2 & -2 \\ \hline 3x &= 45 \end{aligned}$$

$$\begin{aligned} 3x &= 45 \\ \frac{3}{3} & \frac{3}{3} \\ \hline x &= 15 \end{aligned}$$

$$\boxed{x = 15}$$

12) *Corresponding angles (congruent)*

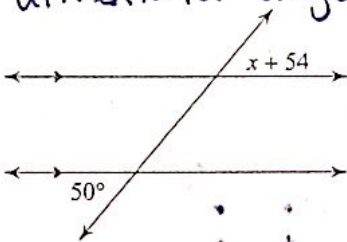


$$\begin{aligned} 4x &= 80 \\ \frac{4}{4} & \frac{4}{4} \\ \hline x &= 20 \end{aligned}$$

$$\boxed{x = 20}$$

Solve for x.

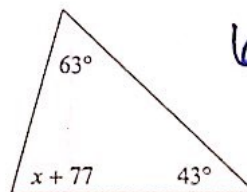
13) *alt. exterior angles (congruent)*



$$\begin{aligned} x + 54 &= 50 \\ -54 & -54 \\ \hline x &= -4 \end{aligned}$$

$$\boxed{x = -4}$$

14)



$$63 + 43 + x + 77 = 180$$

$$\begin{aligned} x + 183 &= 180 \\ -183 & -183 \\ \hline x &= -3 \end{aligned}$$

$$\boxed{x = -3}$$