In 1 and 2, use the figure below.

1. Trace $MATH$ and reflect it over line $\ell$.
2. Trace $MATH$ and rotate it $180^\circ$ about $C$.
3. In the figure below, find the measure of $\angle QRP$.

4. If the measures of the angles of a triangle are in the ratio $3:4:5$, what is the measure of the largest of the three angles?
5. In the figure below, solve for $x$.

In 6 and 7, use the diagram below.

6. If $m\angle 6 = 97^\circ$ and $m\angle 2 = 78^\circ$, find $m\angle 3 + m\angle 8$.
7. **Multiple Choice** If $m\angle 5 = m\angle 1$, then lines $a$ and $c$ are
   A  Perpendicular.
   B  Parallel.
   C  Intersecting and not perpendicular.
   D  Cannot be determined from the given information.
8. In any isosceles triangle, two of the angles have the same measure. If the measure of one angle of a particular isosceles triangle is $114^\circ$, find the measure of the other two angles.
9. Given $\triangle ABC$ and its reflection image $\triangle A'B'C'$, explain how you could find the line of reflection.
10. Given $\triangle ABC$ and its size-change image $\triangle A''B''C''$, explain how you could find the center of the size change.
11. Consider the map below that depicts the intersections of three streets and gives the measure of two angles.

\[126^\circ\]

\[55^\circ\]

Leibnitz Pl

Newton St

Riemann Ave

a. Find the measure of angle 1.
b. Find the measure of angle 2.

12. Describe the single congruence transformation which maps figure I onto figure II.

[Map image]

13. Describe the similarity transformations which, put together, map figure I onto figure II.

[Book images]

14. Fill in the Blanks \( \triangle T'R'I' \) is a translation image of \( \triangle TRI \). If \( T' = (1, 1) \), then the translation is \((x, y) \rightarrow (?, ?)\).

15. Graph \( \triangle TRI \) and its image under the size change \((x, y) \rightarrow (2x, 2y)\).