NAME:_____

1. Draw ΔABC. Construct a line parallel to $\overline{AC}$ through the midpoint of $\overline{AB}$.

2. Graph the triangle with vertices $(0, 0)$, $(1, 6)$, and $(5, -3)$. Construct the altitude to each side. In how many points do they intersect?

3. Draw several acute, right, and obtuse triangles. Construct the altitudes for each triangle. Write a conclusion about where the altitudes intersect.

4. Draw ΔABC. Then draw a line l that does not intersect the triangle. Construct the reflection image of ΔABC in l.

NAME:_____

5. Construct a right triangle and measure the acute angles of the triangle and the length of the hypotenuse. Determine the lengths of the sides and check you work by measuring.

6. Using the origin as its center, draw a circle with a radius of 6 units. Identify three points on the circle.

7. Construct a circle using a compass. Then draw three radii and construct tangents to the radii to construct a triangle in which the circle is circumscribed.

[1] Check students' work.

[2] The altitudes meet in one point.

[3] They intersect at the vertex opposite the hypotenuse in a right triangle, inside the triangle in an acute triangle, and outside the triangle in an obtuse triangle.

[4] Check students' work.

[5] Check students' work.

[6] Answers may vary. Sample: (0,6), (-6,0), (0,-6)

[7] Check students’ work.