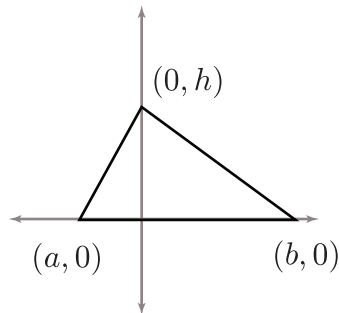


1. What is the formula for a line in the plane? Be sure to find a formula that includes vertical lines.
2. Given points (x_1, y_1) and (x_2, y_2) , find the formula for the line that passes between them.
3. Consider a triangle in the following configuration. Find a formula for each of the lines that make up the sides of the triangle.



4. An altitude of a triangle is a line that passes through a vertex and is perpendicular to the opposite side. Find a formula for each of the altitudes of the triangle.
5. Show that the altitudes all intersect in a single point.