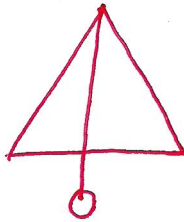
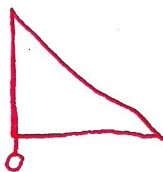


Now, with your team, build and sketch triangles that meet the three conditions below. To organize your work, assign each team member one of the jobs described at right.

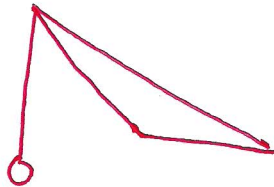
- a. The height of the triangle is inside the triangle. Sketch:



- b. The height of the triangle is a side of the triangle. Sketch:



- c. The height of the triangle is outside the triangle. Sketch:



2-92. How can you find the height of a triangle if it is not a right triangle?

a. On the [Lesson 2.2.4 Resource Page](#) there are four triangles labeled (1) through (4). Assume you know the length of the side labeled "base." For each triangle, draw in the height that would enable you to find the area of the triangle. Note: You do **not** need to find the area.

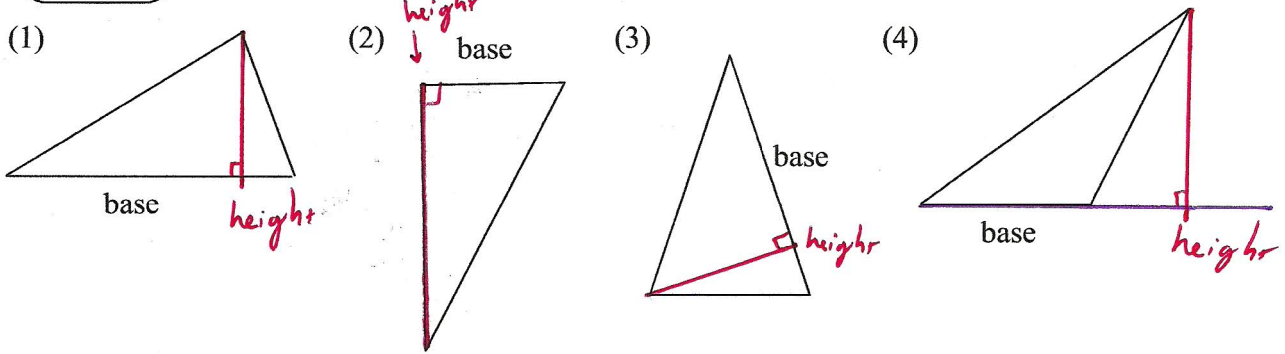
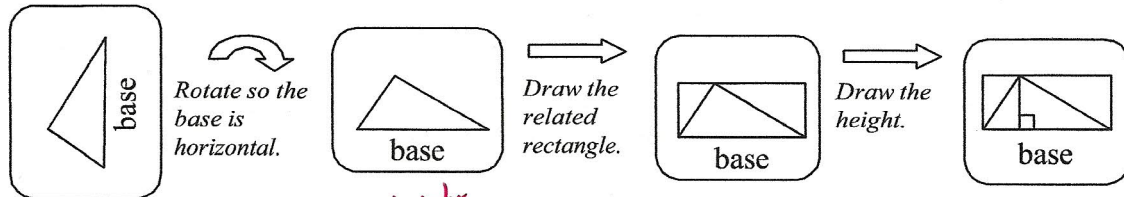
b. Find the triangles for part (b) at the bottom of the same resource page. These triangles are all congruent. For each triangle, choose a base and highlight it with a color and then draw in its respective base with another color. Repeat this process with a new base and height for the other two triangles. (Hint: not all heights will be inside the triangle).

c. Using a ruler, measure and record the length of each base and height in the data table.

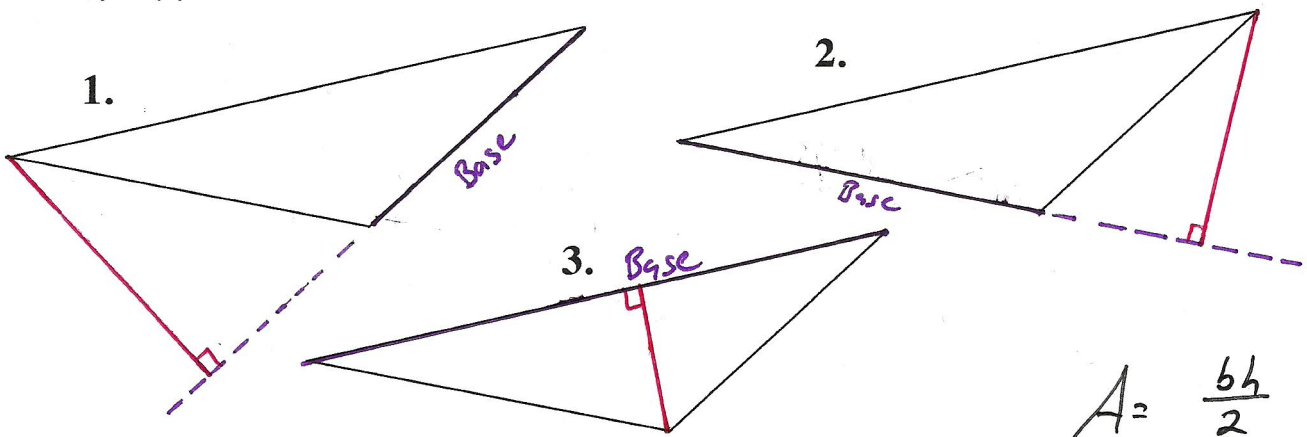
Then calculate the area of the triangles (look at the Math Notes at the end of this packet). What do you notice about the areas?

Resource Page 2.2.4 Height

2-92, part (a)



2-92, part (b)



$$A = \frac{bh}{2}$$

Triangle:	Purple Base Color and Length (cm)	Red Height Color and Length (cm)	Area (cm ²)
1	3.8	3.8	7.22 cm ²
2	4.7	3.0	7.05 cm ²
3	7.5	1.9	7.13 cm ²