

## **Unit 4 Lesson 3: Half an Equilateral Triangle**

### **1 Notice and Wonder: Triangle Slices (Warm up)**

#### **Student Task Statement**

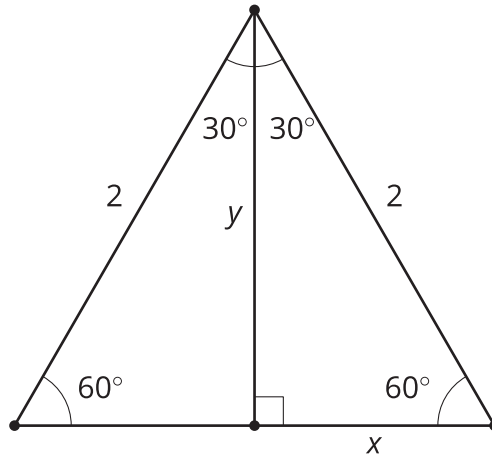
Sketch an equilateral triangle and an altitude from any vertex in the equilateral triangle.

What do you notice? What do you wonder?

## 2 Decomposing Equilateral Triangles (Optional)

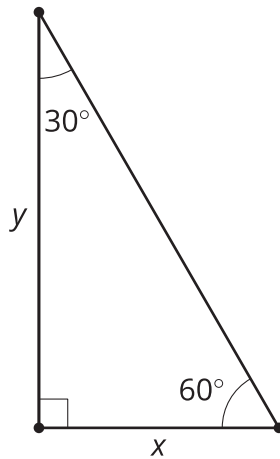
### Student Task Statement

1. Here is an equilateral triangle with side length 2 units and an altitude drawn. Find the values of  $x$  and  $y$ .



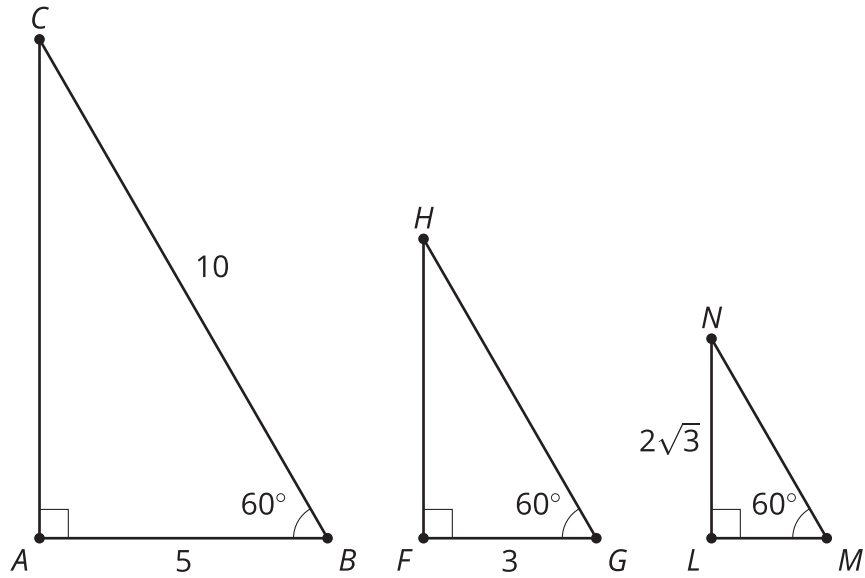
2. Measure several more of these “half equilateral triangles” by drawing equilateral triangles and altitudes. Compute the ratios of the side lengths of these new triangles.
3. Make a conjecture about side lengths in “half equilateral triangles.”

### Activity Synthesis



### 3 Generalize Half Equilateral Triangles (Optional)

#### Student Task Statement



Calculate the lengths of the 5 unlabeled sides.

## Images for Activity Synthesis

