

Lesson 17 Practice Problems

- 1. Use a protractor to try to draw each triangle. Which of these three triangles is impossible to draw?
 - a. A triangle where one angle measures 20° and another angle measures 45°
 - b. A triangle where one angle measures 120° and another angle measures 50°
 - c. A triangle where one angle measures 90° and another angle measures 100°

- 2. A triangle has an angle measuring 90° , an angle measuring 20° , and a side that is 6 units long. The 6-unit side is in between the 90° and 20° angles.
 - a. Sketch this triangle and label your sketch with the given measures.

b. How many unique triangles can you draw like this?



3. A triangle has sides of length 7 cm, 4 cm, and 5 cm. How many unique triangles can be drawn that fit that description? Explain or show your reasoning.

4. A triangle has one side that is 5 units long and an adjacent angle that measures 25°. The two other angles in the triangle measure 90° and 65°. Complete the two diagrams to create two *different* triangles with these measurements.



5. Is it possible to make a triangle that has angles measuring 90 degrees, 30 degrees, and 100 degrees? If so, draw an example. If not, explain your reasoning.