Assignment

LESSON 1: Consider Every Side

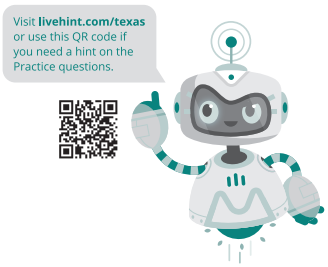
Write

Describe the Triangle Inequality Theorem in your own words.

Remember

When given two line segments, it is possible to construct an infinite number of triangles When given three line segments, it is possible to construct 0 triangles or a single unique triangle.

Practice

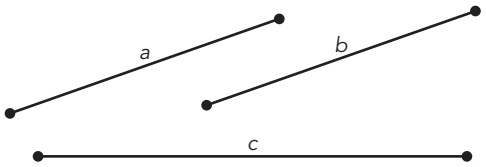


1. Determine if the given side lengths could be used to form a unique triangle, many different triangles, or no triangles. Explain your reasoning.

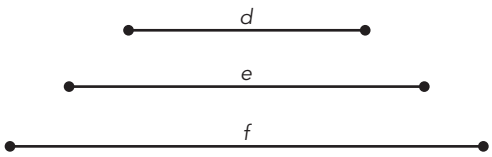
   a. 300 mm, 190 mm
   b. 4 m, 5.1 m, 12.5 m
   c. 7.4 cm, 8.1 cm, 9.8 cm
   d. 12 ft, 7 ft, 14 ft
   e. 20.2 in., 11 in., 8.2 in.

2. Analyze the given line segments. If the given information would create a unique triangle, multiple triangles, or no triangles. Then use the information to construct a triangle, if possible.

   a.



   b.



Stretch

Use your compass and straightedge to construct an equilateral triangle.

Review

1. List the factors of each number. Then, determine the greatest common factor: 25, 36.
2. Rewrite each numeric expression using the Distributive Property and the GCF.
   a. 56 + 35
   b. 90 + 27
3. At the middle school, the bell rings every 40 minutes to tell the students to change classes. Across the street, the clock above city hall chimes every 30 minutes. Both the school bell and the clock ring at noon. When will both bells ring at the same time again?
4. Belinda babysits her neighbor's children in the evening every 14 days. Belinda goes to visit her grandmother in the afternoon every 21 days. Belinda has both activities planned for today. Will Belinda have both activities again on the same day within 30 days? Explain your reasoning.