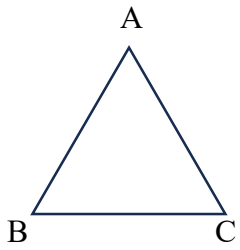
5.5 Homework

Triangle ABC is not drawn to scale. Given the side lengths in each problem, list the angles from smallest to largest.



1. AB = 7, BC = 10, CA = 12
2. AB = 40, BC = 22, CA = 38

Using Triangle ABC (not drawn to scale), given the angle measures for each vertex, list the sides in order from shortest to longest.

3. $\angle A = 100°$, $\angle B = 52°$, $\angle C = 28°$
4. $\angle A = 65°$, $\angle B = 42°$, $\angle C = 73°$

Can a triangle have sides with the given lengths? Explain your answer. (Show me why your answer is correct.)

5. 3 feet, 7 feet, 15 feet
6. 9 m, 16 m, 25 m
7. 11 in, 15 in, 24 in

8. The lengths of each side of a triangle are whole numbers, and x is the length of one side. If $3 < x < 9$, how many different triangles are there with the lengths 2, 9, and x? Show your work.