Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_

Unit 4 ~ Geometry
Triangles Sides and Angles

**Determine whether the line segments can form a triangle (Yes or No). If the measures do form a triangle, classify the triangle based on its sides.**

7. 18m, 12m, 8m \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8. 24in, 15in, 4in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. 10yds, 8yds, 8yds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10. 3.7in, 8in, 5.9in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. 15mm, 8mm, 4mm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12. 11.2ft, 1.7ft, 1.7ft \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Determine whether the given measures form a triangle (Yes or No). If the measures do form a triangle, classify the triangle based on is angles.**

13. 60°, 30°, 90° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 14. 41°, 67°, 72° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. 54°, 36°, 100° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16. 113°, 42°, 35° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. 81°, 62°, 37° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 18. 39°, 52°, 90° \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use what you know from the Learning Task about the side lengths of a triangle to calculate the shortest and longest possible third leg.**

1. If the If two sides of a triangle have lengths 12 cm and 9 cm, the third side must be

greater than \_\_\_\_\_\_\_\_\_\_\_\_\_ and less than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
 If the 3rd is the shortest If the 3rd is the longest leg

1. If two sides of a triangle have lengths 8 cm and 15 cm, the third side must be

greater than \_\_\_\_\_\_\_\_\_\_\_\_\_ and less than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
 If the 3rd is the shortest If the 3rd is the longest leg