

Name: Key HR: _____ Date: _____

Triangle Inequalities Homework #1

Determine whether the given measures can be the lengths of the sides of a triangle. Write *yes* or *no*.

1. 9, 12, 18 **Yes**

2. 8, 9, 17 **No**

3. 14, 14, 19 **Yes**

4. 23, 26, 50 **No**

5. 32, 41, 63 **Yes**

6. 2.7, 3.1, 4.3 **Yes**

7. 0.7, 1.4, 2.1 **No**

8. 12.3, 13.9, 25.2 **Yes**

Find the range for the measure of the third side of a triangle given the measures of two sides.

9. 6 and 19 **$13 < x < 25$**

10. 7 and 29 **$22 < x < 36$**

11. 13 and 27 **$14 < x < 40$**

12. 18 and 23 **$5 < x < 41$**

13. 25 and 38 **$13 < x < 63$**

14. 31 and 39 **$8 < x < 70$**

15. 42 and 6 **$36 < x < 48$**

16. 54 and 7 **$47 < x < 61$**