NAME _____ DATE _____ PERIOD _____

5-4 Practice

The Triangle Inequality

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

1. 9, 12, 18

2. 8, 9, 17

3. 14, 14, 19

4. 23, 26, 50

5. 32, 41, 63

6. 2.7, 3.1, 4.3

7. 0.7, 1.4, 2.1

8. 12.3, 13.9, 25.2

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

9. 6 and 19

10. 7 and 29

11. 13 and 27

12. 18 and 23

13. 25 and 38

14. 31 and 39

15. 42 and 6

16. 54 and 7

ALGEBRA Determine whether the given coordinates are the vertices of a triangle. Explain.

17. $R(1, 3)$, $S(4, 0)$, $T(10, -6)$

18. $W(2, 6)$, $X(1, 6)$, $Y(4, 2)$

19. $P(-3, 2)$, $L(1, 1)$, $M(9, -1)$

20. $B(1, 1)$, $C(6, 5)$, $D(4, -1)$

21. GARDENING Ha Poong has 4 lengths of wood from which he plans to make a border for a triangular-shaped herb garden. The lengths of the wood borders are 8 inches, 10 inches, 12 inches, and 18 inches. How many different triangular borders can Ha Poong make?