

Name : \_\_\_\_\_

## Triangle Inequality

If the measures of two sides of a triangle are given, find the range of possible measures of the third side ( $x$ ).

1) 13 yd, 18 yd

2) 27 ft, 20 ft

\_\_\_\_\_

\_\_\_\_\_

3) 25 in, 7 in

\_\_\_\_\_

\_\_\_\_\_

5) 16 ft, 19 ft

\_\_\_\_\_

\_\_\_\_\_

7) 32 yd, 21 yd

\_\_\_\_\_

\_\_\_\_\_

9) Robert stitches a lateen sail for his boat. If the lengths of two sides of the sail are 4 yards each, what is the possible third side measure of the sail?

a) 8 yards

b) 10 yards

c) 7 yards

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**Triangle Inequality**

If the measures of two sides of a triangle are given, find the range of possible measures of the third side ( $x$ ).

1) 13 yd, 18 yd

2) 27 ft, 20 ft

$$\underline{5 \text{ yd} < x < 31 \text{ yd}}$$

$$\underline{7 \text{ ft} < x < 47 \text{ ft}}$$

3) 25 in, 7 in

$$\underline{18 \text{ in} < x < 32 \text{ in}}$$

$$\underline{18 \text{ in} < x < 55 \text{ yd}}$$

5) 16 ft, 19 ft

$$\underline{3 \text{ ft} < x < 35 \text{ ft}}$$

$$\underline{3 \text{ ft} < x < 14 \text{ in}}$$

7) 32 yd, 21 yd

$$\underline{11 \text{ yd} < x < 53 \text{ yd}}$$

$$\underline{6 \text{ ft} < x < 28 \text{ ft}}$$

9) Robert stitches a lateen sail for his boat. If the lengths of two sides of the sail are 4 yards each, what is the possible third side measure of the sail?

a) 8 yards

b) 10 yards

c)  7 yards