**Segment Addition Postulate**

If *AB+BC = AC* , then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write the **Segment Addition Postulate** for each problem. Also use **Segment Addition Postulate** to solve the following problems.

1. If AB = 12 and BC = 7, then find the length of AC.

1. Point J is between points A and B on AB

If *AJ* = 8 and *JB* = 7, then *AB* = \_\_\_\_\_\_\_\_\_\_\_\_

If *AB* = 12 and *JB* = 4, then *AJ* = \_\_\_\_\_\_\_\_\_\_\_\_

1. *AC =* 9. Solve for x and find the length of BC.
2. If AB = 4x + 9, BC = 5x + 2, and AC = 56, then find the value for x, AB, BC.
3. If AB = 2(x +1), BC = 3x + 1, and AC = 4(x + 2), then find the value for x, AB, BC and AC

**Refer to the figure and the given information to find each measure.**

9. Given : AC = 39 m

C

**.**

A

B

2x-8

x+17

x = \_\_\_\_\_\_\_\_

AB = \_\_\_\_\_\_\_

BC = \_\_\_\_\_\_\_

10. Given the figure and DG = 60 ft.

D

O

G

4x- 3

2x + 21

x = \_\_\_\_\_\_\_

DO = \_\_\_\_\_\_

OG = \_\_\_\_\_\_