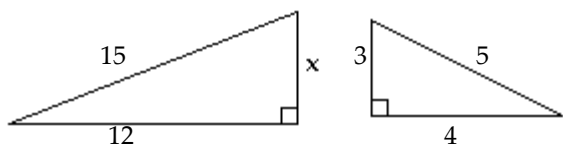


Name \_\_\_\_\_

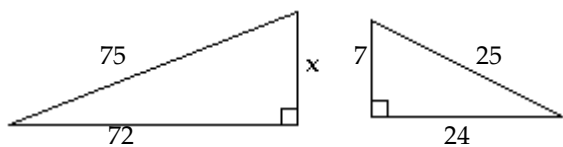
Find the missing length in the similar triangles.

1)



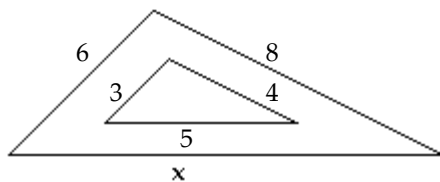
1) \_\_\_\_\_

2)



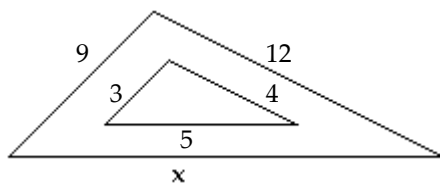
2) \_\_\_\_\_

3)



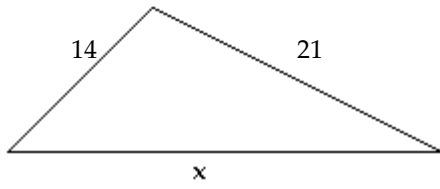
3) \_\_\_\_\_

4)



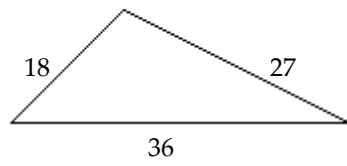
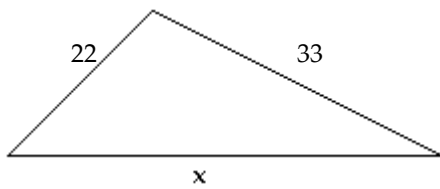
4) \_\_\_\_\_

5)



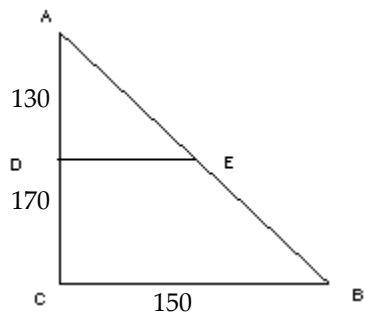
5) \_\_\_\_\_

6)



6) \_\_\_\_\_

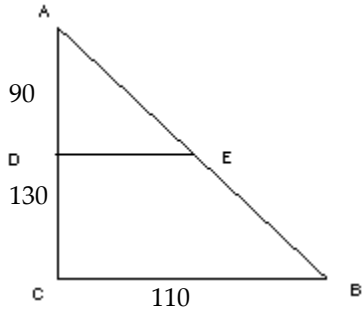
7) Find the length of DE.



7) \_\_\_\_\_

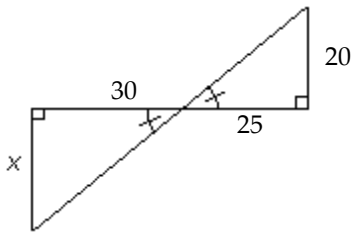
8) Find the length of DE.

8) \_\_\_\_\_



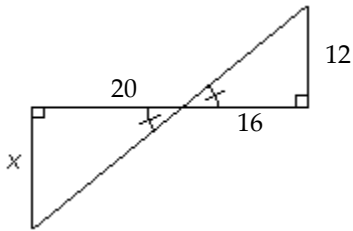
9)

9) \_\_\_\_\_



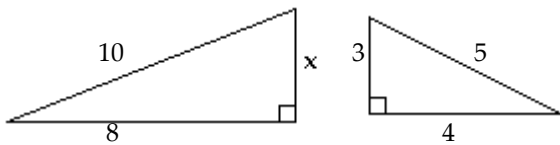
10)

10) \_\_\_\_\_

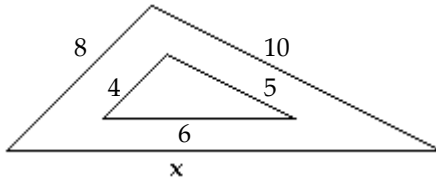


11)

11) \_\_\_\_\_

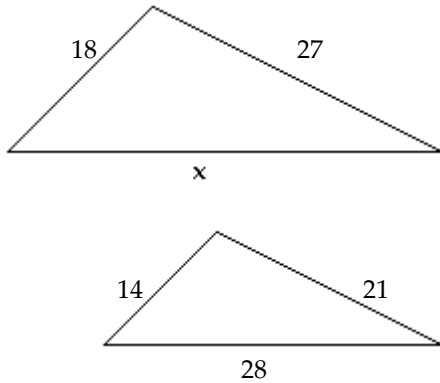


12)



12) \_\_\_\_\_

13)



13) \_\_\_\_\_

**Solve the problem.**

14) A flagpole casts a shadow of 23 ft. Nearby, a 10-ft tree casts a shadow of 5 ft. What is the height of the flag pole?

14) \_\_\_\_\_

15) A flagpole casts a shadow of 36 ft. Nearby, a 10-ft tree casts a shadow of 9 ft. What is the height of the flag pole?

15) \_\_\_\_\_

16) A vehicle parked on the street that is 4 feet tall casts a shadow 12 feet long. At the same time, a house nearby casts a shadow 84 feet long. Find the height of the house.

16) \_\_\_\_\_

17) A vehicle parked on the street that is 6 feet tall casts a shadow 24 feet long. At the same time, a house nearby casts a shadow 64 feet long. Find the height of the house.

17) \_\_\_\_\_

## Answer Key

Testname: SIMILARTRIANGLES

- 1)  $x = 9$
- 2)  $x = 21$
- 3)  $x = 10$
- 4)  $x = 15$
- 5)  $x = 28$
- 6)  $x = 44$
- 7)  $DE = 65$
- 8)  $DE = 45$
- 9) 24
- 10) 15
- 11)  $x = 6$
- 12)  $x = 12$
- 13)  $x = 36$
- 14) 46 ft
- 15) 40 ft
- 16) 28 ft
- 17) 16 ft