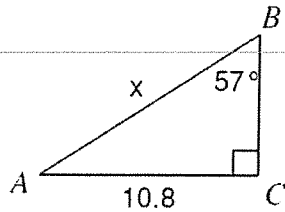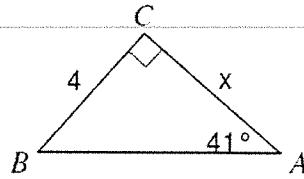Find the value of x to the nearest hundredth in each problem. SHOW YOUR WORK.
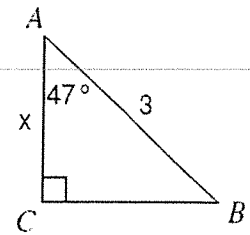
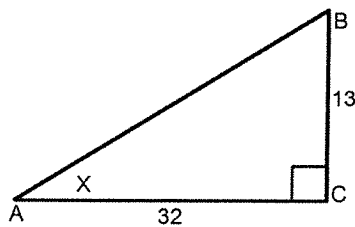**1.**

B

x   57°

A   10.8   C

2.

C

4   x

B   41°   A

3.

A

47°   3

x

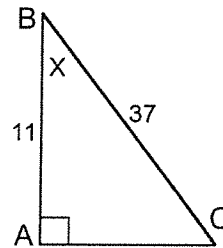C   B

4.

B

13

x

A   32   C

5.

B

x   37

11

A   C

For 6-8 draw and label a diagram then answer the question. SHOW YOUR WORK.

6. A rocket is shot straight up into the air from the ground. You are 100 feet from where the rocket was launched. You see the rocket with an angle of elevation of 72°. Find the height of the rocket to the nearest tenth of a foot.

7. A 12 foot ladder is placed against the wall of a building. For safety, the ladder is placed such that it makes a 65° with the ground. How high up the wall can the ladder reach? Round to the nearest hundredth.

8. You are in a hot air balloon directly above your house. You are at an altitude of 500 ft. If you see your sister on the ground with an angle of elevation of 58°. How far from the house is your sister? Round to the nearest tenth.

1