Write an equation you could use to solve for x. Then solve. Round decimal answers to the nearest tenth.

1.

3 ft   3 ft
6 ft
x ft

2.

17 mi
x mi
8 mi

3.

18 cm
x cm
5 cm

Solve. Round decimal answers to the nearest tenth.

4.
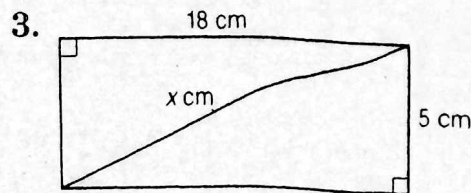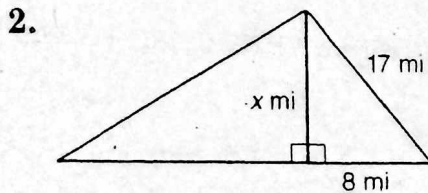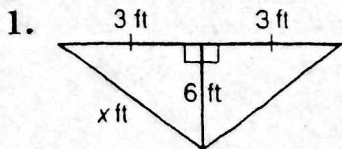
window ledge
ladder 39 ft
|←15 ft→|
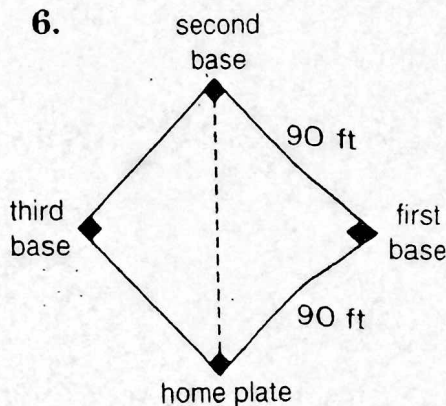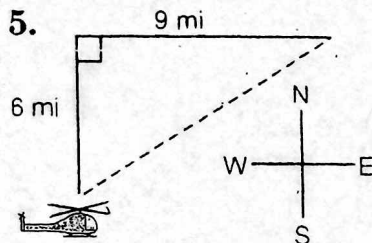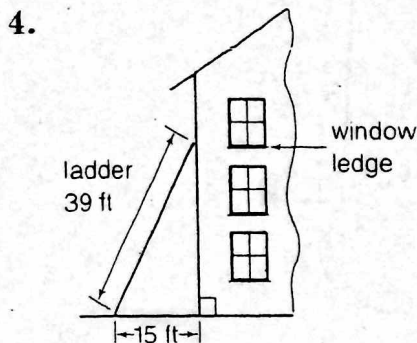
How high is the top window ledge above the ground?

5.

9 mi
6 mi
N
W—E
S

How far is the helicopter from its starting point.

6.

second base
90 ft
third base
first base
90 ft
home plate

How far does a baseball travel from home plate to second base?

In a right triangle, if a and b are the measures of the legs and c is the measure of the hypotenuse, find each missing measure. Round decimal answers to the nearest tenth.

7. $b = 16, c = 20$

8. $a = 6, c = 14$

9. $a = 9, c = 16$

10. $b = 15, c = 20$

11. $a = 8, c = 12$

12. $b = 5, c = 16$

The measurements of three sides of a right triangle are given. Determine whether each triangle is a right triangle.
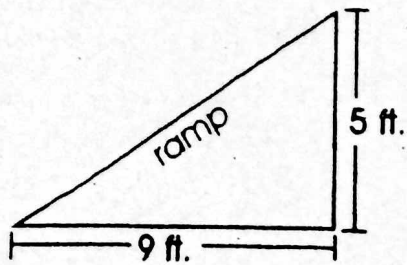
13. 8 km, 15 km, 17 km

14. 15 in., 20 in., 25 in.
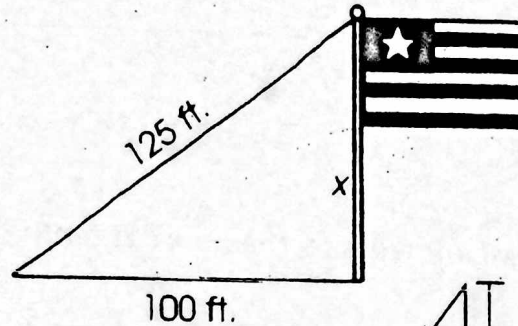
15. 8 mm, 9 mm, 15 mm
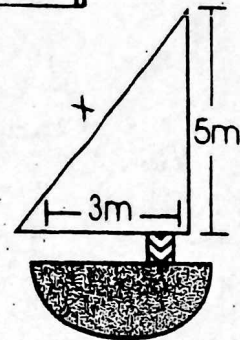
16. 10 mi, 20 mi, 30 mi

How long is the ramp?

$$9^2 + 5^2 = ramp^2$$

$$ramp = 10.3 \text{ feet}$$

ramp

5 ft.

9 ft.

1. How high is the flag pole?

125 ft.

x

100 ft.

2. How long is the longest side of the sail?

5m

3m

3. A 10-foot ladder is leaning against a house with its base 4 feet from the base of the house. How far up the house does the ladder touch the house? (Hint: Draw a picture.)

4. A 5-foot tall tree casts an 8-foot shadow on the ground. How far is it from the end of the shadow to the top of the tree? (Hint: Draw a picture.)

5. A guy wire is secured into the ground 15 feet from the base of a 36-foot pole. How long is the guy wire if it is attached at the top of the 36-foot pole? (Hint: Draw a picture.)

6. An airplane travels due east 65 miles, and then due north 72 miles. How far is the airplane from its starting point? (Hint: Draw a picture.)