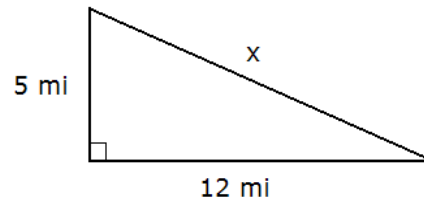


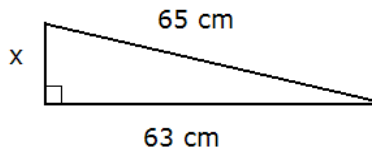
1. Could the three line segments given below be the three sides of a right triangle? Explain your answer.

- (a) 2 cm, 7 cm, and 1 cm **not even a triangle**  
(b) 37 ft, 12 ft, and 35 ft **There is a right angle opposite the 37 ft long side.**  
(c) 4 m, 5 m, and 6 m **not a right triangle**

2. Find the hypotenuse of the triangle shown on the figure below. **13 mi**



3. Find the missing leg of the right triangle shown on the picture below. **16 cm**



4. Find the length of the diagonal in a rectangle with sides 20 ft and 21 ft long. **29 ft**

5. Find the length of the diagonal of a square with sides 1 unit long.  **$\sqrt{2}$  units**

6. Two sides of a right triangle are 8 cm and 17 cm long. Find the length of the missing side. **15 cm or  $\sqrt{353}$  cm**

7. Find the distance between the points  $(-2, -3)$  and  $(3, 1)$ .  **$\sqrt{29}$  units**

8. Find the distance between  $(-9, -3)$  and  $(15, 4)$ . **25 units**

9. One leg of a right triangle is 9 cm. The difference between the other two sides is 1 cm. Find the length of all sides. **9 cm, 40 cm, and 41 cm**

10. The hypotenuse of a right triangle is 50 in. The difference between the other two sides is 34 in. Find the length of all sides. **14 in, 48 in, and 50 in**