

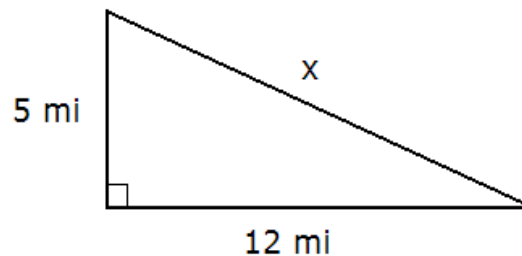
1. In case of each of the following number triples, determine if they can be the lengths of the three sides in a right triangle.

(a) 1 cm, 2 cm, 7 cm **no**

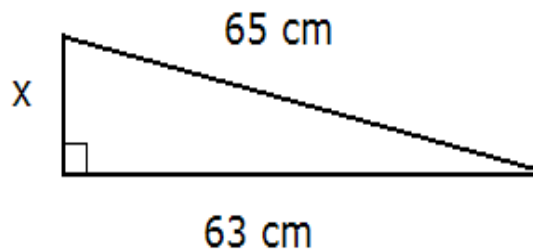
(b) 35 ft, 37 ft, 12 ft **yes**

(c) 4 m, 5 m, 6 m **no**

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  $\cong$  18.7882942 cm**

7. Find the distance between the points  $(-5, -3)$  and  $(-2, 1)$ . **5 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**