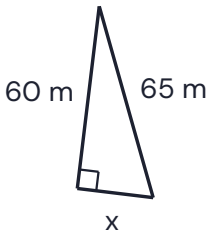
Pythagorean theorem: find the missing leg

Find x, a leg: square the hypotenuse, take away the other leg squared, then the square root.

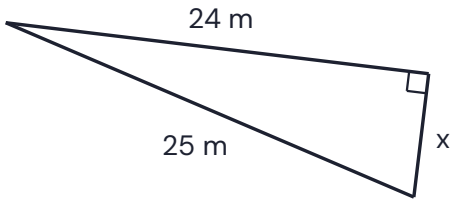
Name _____ Date _____

1.



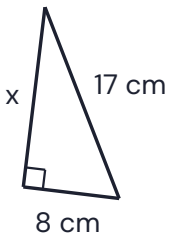
x = _____

2.



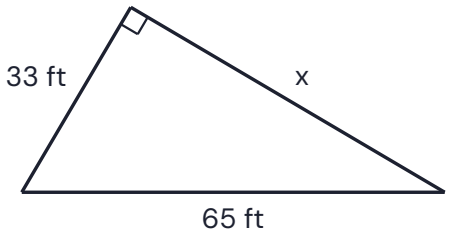
x = _____

3.



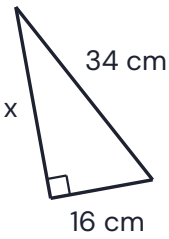
x = _____

4.



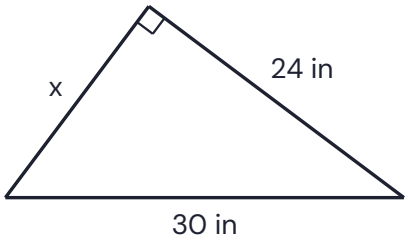
x = _____

5.



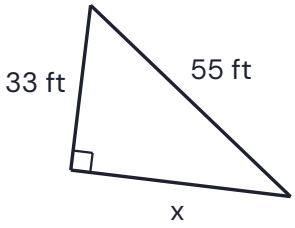
x = _____

6.



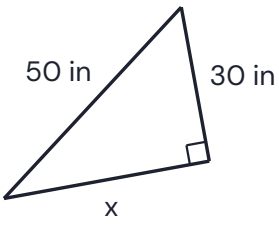
x = _____

7.



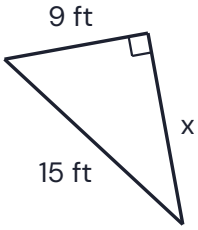
x = _____

8.



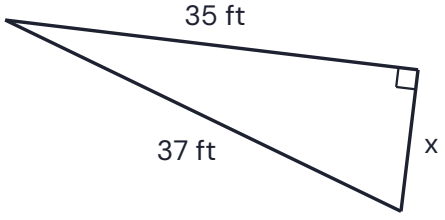
x = _____

9.



x = _____

10.



x = _____

Pythagorean theorem: find the missing leg: answer key

Each answer in colour, with the working before it.

1. $x^2 + 60^2 = 65^2$
   $x^2 = 4225 - 3600 = 625$
   $x = \sqrt{625} =$ 25 m

2. $x^2 + 24^2 = 25^2$
   $x^2 = 625 - 576 = 49$
   $x = \sqrt{49} =$ 7 m

3. $x^2 + 8^2 = 17^2$
   $x^2 = 289 - 64 = 225$
   $x = \sqrt{225} =$ 15 cm

4. $x^2 + 33^2 = 65^2$
   $x^2 = 4225 - 1089 = 3136$
   $x = \sqrt{3136} =$ 56 ft

5. $x^2 + 16^2 = 34^2$
   $x^2 = 1156 - 256 = 900$
   $x = \sqrt{900} =$ 30 cm

6. $x^2 + 24^2 = 30^2$
   $x^2 = 900 - 576 = 324$
   $x = \sqrt{324} =$ 18 in

7. $x^2 + 33^2 = 55^2$
   $x^2 = 3025 - 1089 = 1936$
   $x = \sqrt{1936} =$ 44 ft

8. $x^2 + 30^2 = 50^2$
   $x^2 = 2500 - 900 = 1600$
   $x = \sqrt{1600} =$ 40 in

9. $x^2 + 9^2 = 15^2$
   $x^2 = 225 - 81 = 144$
   $x = \sqrt{144} =$ 12 ft

10. $x^2 + 35^2 = 37^2$
    $x^2 = 1369 - 1225 = 144$
    $x = \sqrt{144} =$ 12 ft