8 Pythagorean Theorem Practice Problems
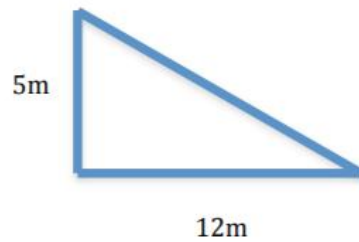
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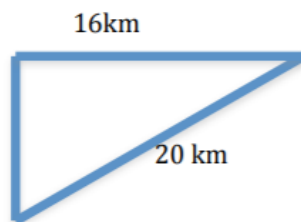
1. Suppose you fly 4000 miles south and then 3000 miles east. How far are you from where you started?

2. Find the missing side.

5m

12m

3. If your chicken coup measures 6ft x 8ft, what is the distance across the diagonal?

4. Find the missing side.

16km

20 km

5. Suppose you drive 80 miles north, and then head 150 miles west. How far are you from where you first started?

Using the Pythagorean Theorem in Word Problems – WS #2

Solve by drawing a picture, identifying a, b, and c, and applying the Pythagorean Theorem. Don't forget to give your answer with units!

1. Two sides of a right triangle are 8 and 12 in.
   a. Find the missing side if these are the lengths of the legs.

   b. Find the missing side if these are the lengths of a leg and hypotenuse.

2. The foot of a ladder is placed 6 feet from a wall. If the top of the ladder rests 8 feet up on the wall, how long is the ladder?

3. The bottom of a ladder must be placed 3 ft. from a wall. The ladder is 12 feet long. How far above the ground does the ladder touch the wall?

4. John leaves school to go home. He walks 6 blocks North and then 8 blocks west. How far is John from the school?

5. Scott wants to swim across a river that is 400 meters wide. He begins swimming perpendicular to the shore he started from but ends up 100 meters down river from where he started because of the current. How far did he actually swim from his starting point?

6. A ramp is placed from a ditch to a main road 2 ft. above the ditch. If the length of the ramp is 12 ft., how far away is the bottom of the ramp from the road?

7. A 13 ft. ladder is placed 5 feet away from a wall. The distance from the ground straight up to the top of the wall is 13 ft. Will the ladder reach the top of the wall?