

# THE PYTHAGOREAN THEOREM

## LEARNING GOAL

1. I can use the pythagorean theorem  $a^2 + b^2 = c^2$  to find the lengths of the hypotenuse of a right triangle, given the two legs.
2. I can use the pythagorean theorem  $a^2 + b^2 = c^2$  to find one of the lengths of a right triangle, given the hypotenuse and one of the legs.

# RESPOND TO FEEDBACK ON YOUR WORK

**Directions:** If you have a Schoology message from Mr. Durden about a previous assignment, choose one question and answer it in the space below. (If the feedback just says that you did a nice job, you do not have to do anything here).

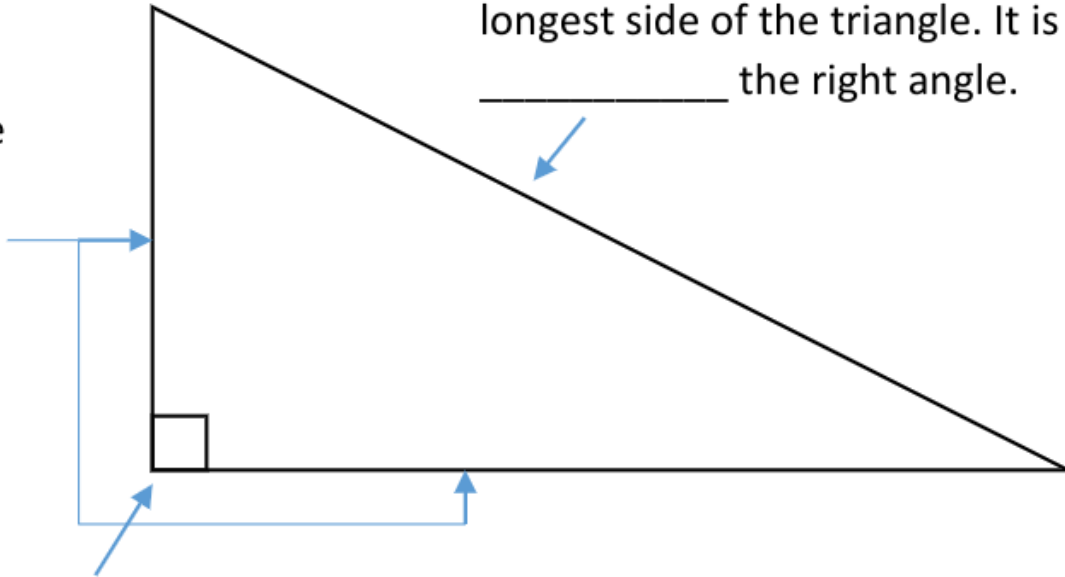
# VOCABULARY REVIEW

**Directions:** Fill in each blank for the right triangle by using the words in the word list.

## A Right Triangle

These sides are called the \_\_\_\_\_

of the triangle.



The \_\_\_\_\_ is the longest side of the triangle. It is \_\_\_\_\_ the right angle.

This angle is  $90^\circ$  and is also called a \_\_\_\_\_.

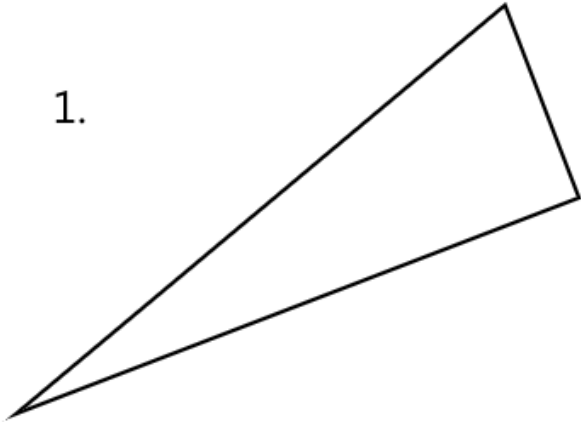
## WORD LIST

- Hypotenuse
- Legs
- Right Angle
- Opposite

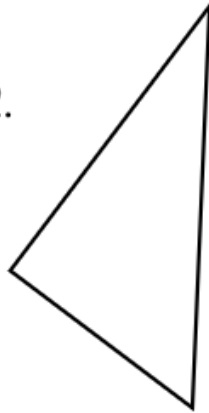
# QUICK PRACTICE

**Directions:** Label the hypotenuse with an “H” on each of the right triangles below.

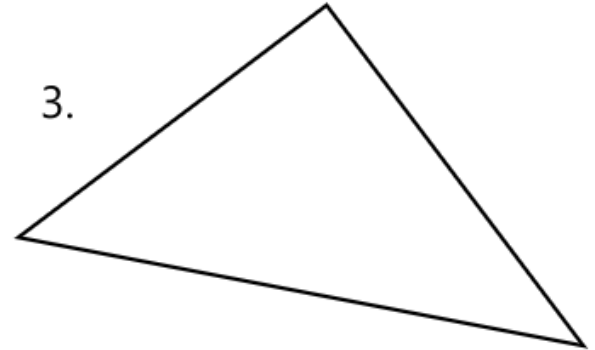
1.



2.



3.

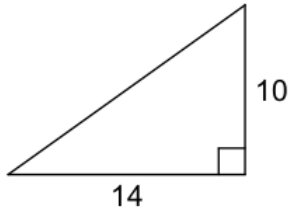


In the exercise above, how did you know which side of the triangle the hypotenuse was?

# EXAMPLES

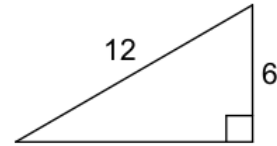
Find each missing length to the nearest tenth.

1)



- A) 17.2
- B) 17.8
- C) 295.8
- D) 24

2)

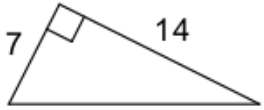


- A) 68.9
- B) 108.2
- C) 10.4
- D) 6

# EXERCISES

Find each missing length to the nearest tenth.

1)



A) 246.5

B) 13.3

C) 15.7

D) 21

2)



A) 10.7

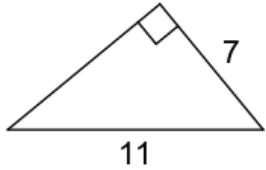
B) 12.5

C) 6

D) 11

Find each missing length to the nearest tenth.

3)



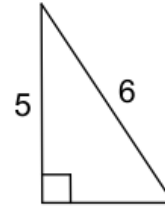
A) 72.3

B) 4

C) 8.5

D) 6.4

4)



A) 2.1

B) 10.9

C) 1

D) 3.3

# ANSWERS TO EXERCISES

Check your answers. Go back and review the video for this lesson if you need help.

1. C

2. D

3. C

4. D

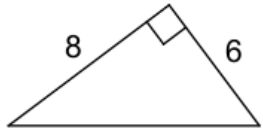


# LEARNING CHECK

**Directions:** Show your work for each problem below. When you finish 1-4, enter your answers into the Pythagorean Theorem Learning Check on Schoology.

Find each missing length to the nearest tenth.

1)



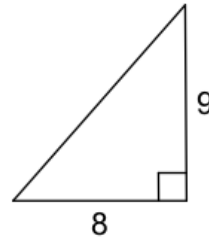
A) 100

B) 10

C) 10.6

D) 14

2)



A) 198.8

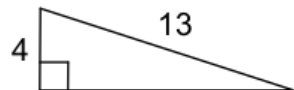
B) 12

C) 17

D) 144

Find each missing length to the nearest tenth.

3)



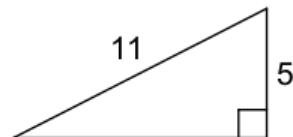
A) 153.8

B) 161.3

C) 12.4

D) 9

4)



A) 96

B) 9.8

C) 11

D) 6