



The Pythagorean Theorem



Name _____ Class _____ Date _____

1 In a right triangle, one leg measures **12 inches** and the other leg measures **16 inches**. What is the length of the **hypotenuse**?
 $a^2 + b^2 = c^2$

- A 12 in.
- B 16 in.
- C 20 in.
- D 40 in.

2 The hypotenuse of a right triangle is **26 cm**. One of the legs of the triangle is **24 cm**. What is the length of the **other leg**?
 $a^2 + b^2 = c^2$

- A 8 cm
- B 10 cm
- C 12 cm
- D 20 cm

3 A **Pythagorean triple** is a set of numbers that always satisfy the equation, $a^2 + b^2 = c^2$. The numbers, **30, 72, 78**, are a Pythagorean triple.

True or false?

4 In the figure shown, $\angle JLK$ is a **right angle**.

True or false?

- A true
- B false

5



PREVIEW

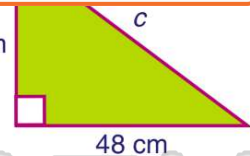
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7

$a^2 + b^2 = c^2$

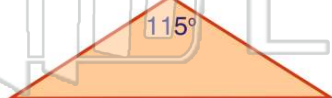
- A 9 in.
- B 12 in.
- C 24 in.
- D 30 in.

- A 3,600 cm
- B 1,296 cm
- C 60 cm
- D 36 cm



9 What kind of **triangle** is shown in the figure?

- A acute
- B obtuse
- C right
- D isosceles



10 What kind of **triangle** is shown in the figure?

- A acute
- B obtuse
- C right
- D isosceles





ANSWER KEY

In a right triangle, one leg measures **12 inches** and the other leg measures **16 inches**. What is the length of the **hypotenuse**?

$$a^2 + b^2 = c^2$$

- A 12 in.
- B 16 in.
- C 20 in.
- D 40 in.

(c)

The hypotenuse of a right triangle is **26 cm**. One of the legs of the triangle is **24 cm**. What is the length of the **other leg**?

$$a^2 + b^2 = c^2$$

- A 8 cm
- B 10 cm
- C 12 cm
- D 20 cm

(b)

A **Pythagorean triple** is a set of numbers that always satisfy the equation, $a^2 + b^2 = c^2$. The numbers, **30, 72, 78**, are a Pythagorean triple.

True or false?

- A true
- B false

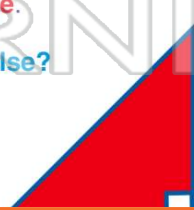
(a)

In the figure shown, $\angle JLK$ is a **right angle**.

True or false?

- A true
- B false

(b)

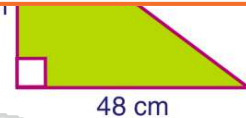


PREVIEW

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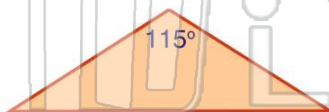
- A 9 in.
- B 12 in.
- C 24 in.
- D 30 in.

- A 1,200 cm
- B 30 cm
- C 60 cm
- D 36 cm



What kind of **triangle** is shown in the figure?

- A acute
- B obtuse
- C right
- D isosceles



(b)

What kind of **triangle** is shown in the figure?

- A acute
- B obtuse
- C right
- D isosceles



(a)