Name _____

Right Angles and the Pythagorean Theorem

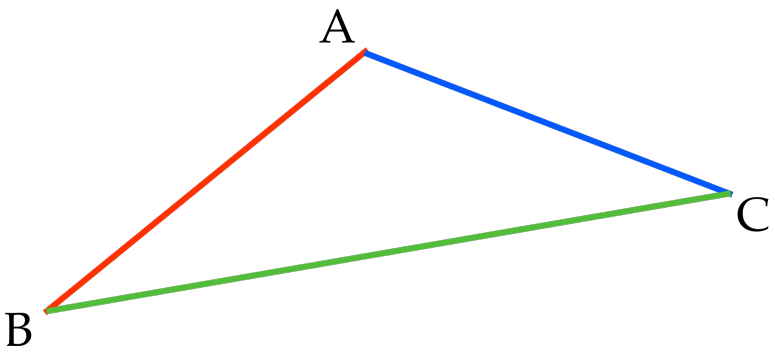
Date _____ Period _____

Triangles

A triangle is a polygon with three sides.

3 Vertices

A
B
C

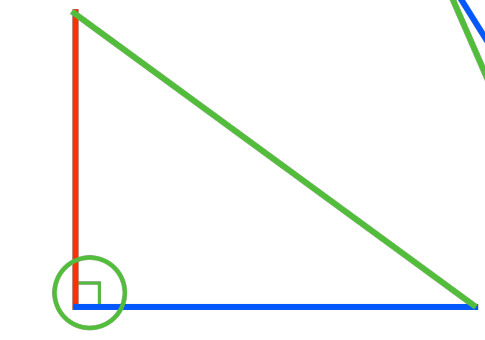


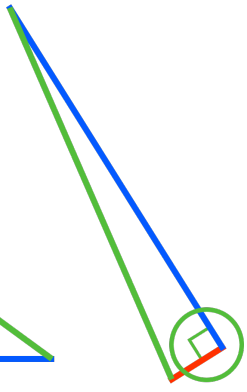
3 Sides

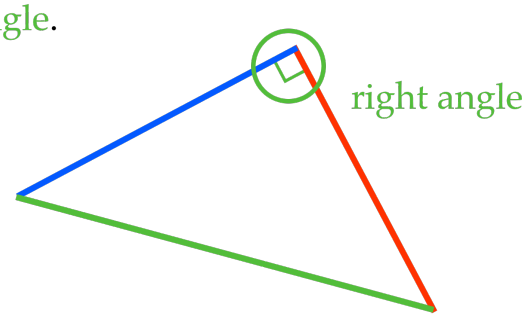
$\overline{AB}$
$\overline{BC}$
$\overline{AC}$

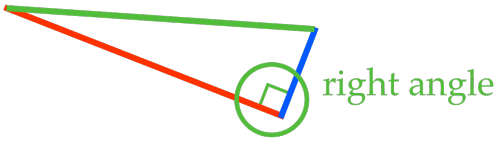
Right Triangles

A triangle with a right angle.



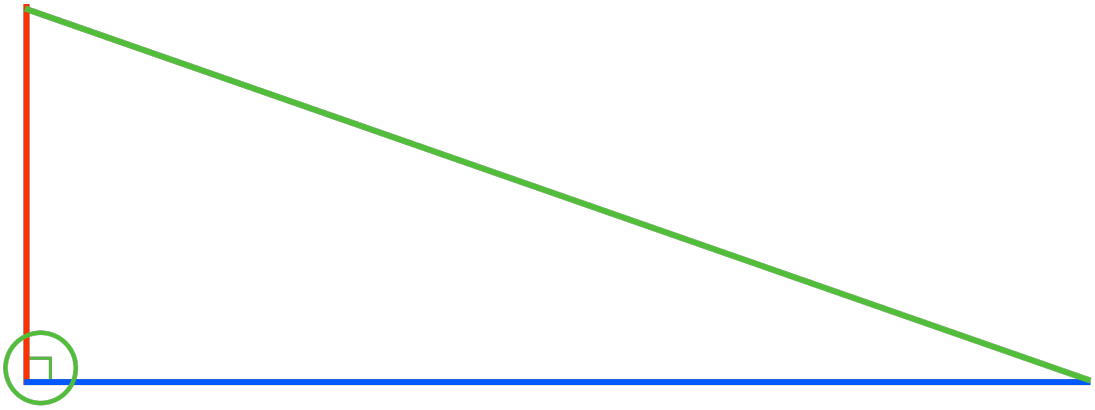




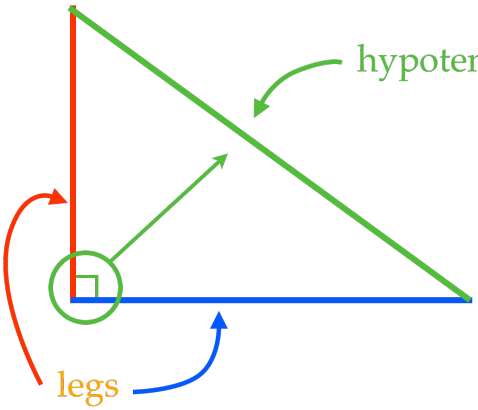


Right Triangles

A triangle with a right angle.



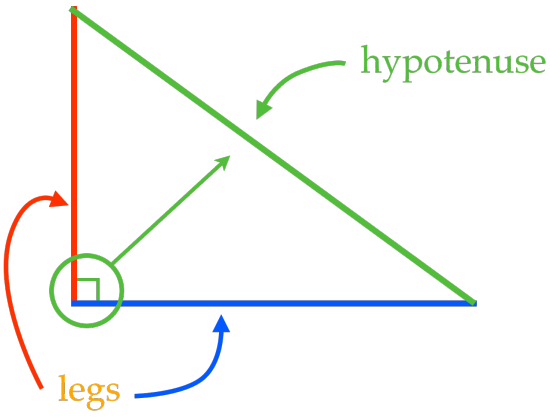
All right triangles have a right angle



Right Triangles

On a right triangle, the hypotenuse is the side opposite the right angle. It is always the longest.

The other two sides are the legs.

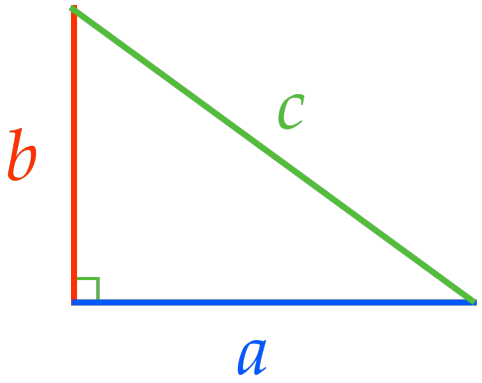


Right Triangles

The Pythagorean Theorem

In a right triangle, the sum of the squares of the legs is equal to the square of the hypotenuse.

$$(\text{leg})^2 + (\text{leg})^2 = (\text{hypotenuse})^2$$



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The Pythagorean Theorem

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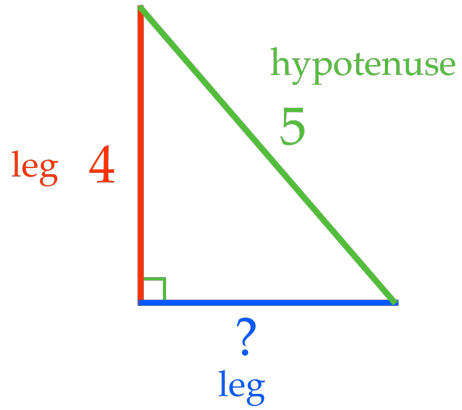
Find the length of the missing side.



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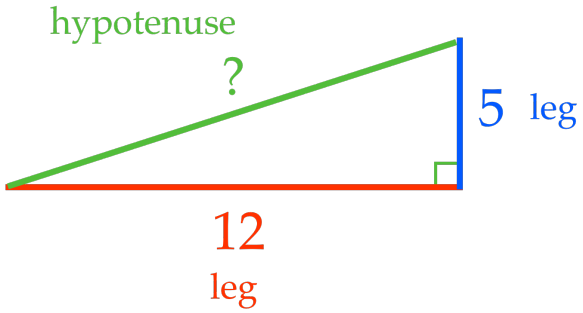

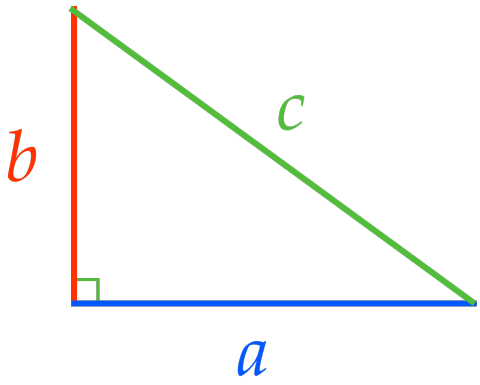

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