7.5

CONVERSE OF THE PYTHAGOREAN THEOREM

Today's Learning Goals:

- **Use the converse of the Pythagorean Theorem to identify right triangles.**
- **Use the Pythagorean Theorem to find distances in a coordinate plane.**
- **Solve real-life problems.**

What is a converse?

The Converse of the Pythagorean Theorem

In a triangle if $a^2 + b^2 = c^2$ **works , then the triangle is a _____.**

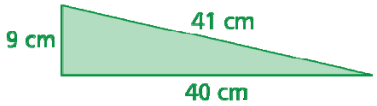
Determine if the triangle with the given side lengths is a right triangle.

1) $11, 18, 21$

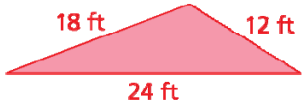
2) $5, 6, \sqrt{11}$

Tell whether each triangle is a right triangle.

a.



b.



Determine if the triangle with the given side lengths is a right triangle.

c. Triangle with sides 9, 7, 10

d. Triangle with sides 10, 6, 13

e. Triangle with sides 13, 5, 12