

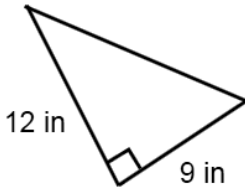
11.2-11.4 Study Guide

Simplifying Radicals and Pythagorean Theorem

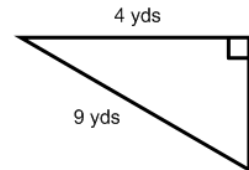
11.4 Pythagorean Theorem

Find the missing side of a triangle:

Ex:



Ex:



Decide if three sides could form a **right** triangle.

Ex: 13, 12, 5

11.2 Simplifying Radicals

-Simplify radicals using the product property:

Ex: $\sqrt{68}$

Ex: $3\sqrt{32}$

Ex: $2\sqrt{12} \cdot 4\sqrt{20}$

Ex: $7\sqrt{5x^2yz^4} \cdot 2\sqrt{8}$

-Simplify radicals using the quotient property:

Ex: $\sqrt{\frac{8}{25}}$

Ex: $\sqrt{\frac{100}{121}}$

Rationalize the denominator:

Ex: $\sqrt{\frac{24}{7}}$

Perform operations with radicals:

Ex: $2\sqrt{7} + 3\sqrt{63}$

Ex: $\sqrt{3}(2 + \sqrt{12})$

Ex: *ACC ONLY*

$$(\sqrt{7} + \sqrt{2})(\sqrt{7} - 3\sqrt{2})$$