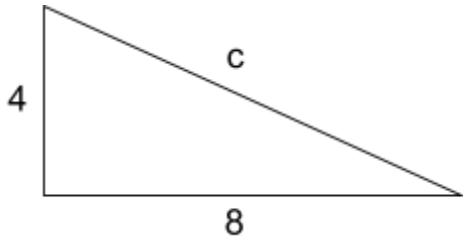
Lesson 2.4.2: Multiplying and Simplifying Radicals

Targets:

1. I can simplify square root radicals involving multiplication.
2. I can find the exact measurement of missing side lengths of of right triangles.

Warm Up (Part 1)

Use the Pythagorean Theorem to find the length of the hypotenuse.
Are you able to find an exact answer, or do you need to round it?
How can you write your answer in a way that it is exact?



Warm Up (Part 2)

Click the link on my website to do the Khan Academy activity called "Square Roots and Perfect Squares."

Simplifying Radicals

See if you can simplify these radicals like I did in the first warm up. Simplify as much as you can and then check the next video to see how you did.

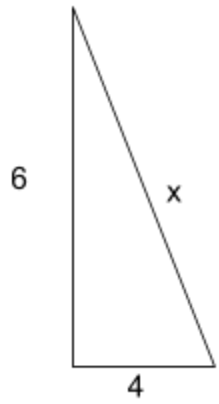
$\sqrt{72}$ $\sqrt{50}$ $\sqrt{80}$ $\sqrt{30}$

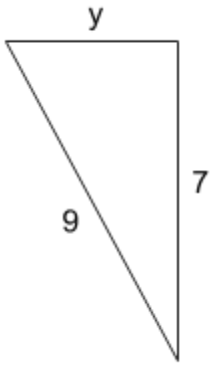
Practice 1

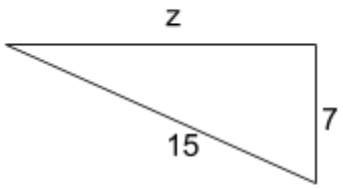
Click the link on my website to do the Khan Academy activity called "Simplify numerical radical terms."

Pythagorean Practice

Now that you know how to simplify radicals, you can easily find the missing side lengths of these right triangles without needing to round. Use what you have learned so far in this lesson to find the EXACT length of each missing side.

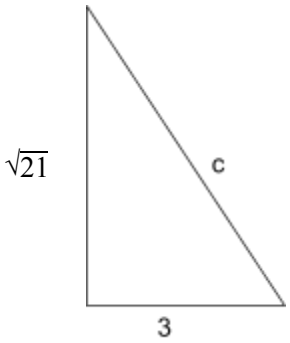






Challenge

Try out this challenge problem. Find the missing side length.



Exit Ticket

1. Write this expression in simplest radical form: $\sqrt{243}$

2. Teja missed class today. Explain to her how to write the length of the hypotenuse in simplest radical form.