HOW TO SIMPLIFY NON-PERFECT SQUARES

What is a Non-Perfect Square?

Examples of non perfect squares:

$\sqrt{3}$ $\sqrt{50}$ $\sqrt{29}$

Review: How did we estimate the square root of a non perfect square root? List the roots…

$\sqrt{3}$ $\sqrt{50}$ $\sqrt{29}$

Try It: Estimate the square roots of $\sqrt{32}$:

Simplifying Non Perfect Square Roots: Instead of estimating and guessing and checking, we can actually **simplify the square root of a non perfect square.** First let's review some key terms:

Radical	
Radicand	
Perfect Square	
Simplified Radical	
List the first 10 Perfect Squares	

How to Simplify Non Perfect Squares

Take the non perfect square and list the factor pairs (which two factors multiply together to get that non perfect square)	$\sqrt{20}$	Factor Pairs:
Identify the factors that are perfect squares (circle, square, underline, whatever!)	List the factors that have a perfect square as one:	
Create a mathematical sentence showing how you can: Turn the square root of a non perfect square (use =>) into a simplified expression made up of the root times the radical of whatever factor is left.		

Time for some Practice...

Example 1: $\sqrt{18}$	Example 2: $\sqrt{8}$
You 1: $\sqrt{27}$	You 2: $\sqrt{75}$
You 3: $\sqrt{45}$	You 4: $\sqrt{128}$