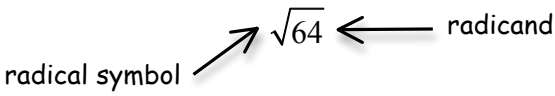


Main Ideas/Questions	Notes/Examples				
<p>WARM UP</p>	<p>Directions: Simplify.</p> <p>1. $(8)^2 =$ _____</p> <p>2. $(-8)^2 =$ _____</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block; margin-left: 200px;">64 is a perfect square!</div>				
<p>VOCABULARY</p> <p>See page 763.</p>	<p>A radical expression involves a radical symbol.</p> <div style="text-align: center;">  </div> <p>A number b is the square root of a if $b^2 = a$.</p> <p>The square root of 64 is 8 if $8^2 = 64$. In other words, $\sqrt{64} = 8$.</p> <p>If $(-8)^2 = 64$, then is -8 also the square root of 64? _____</p> <p>Why or why not? _____</p> <p>_____</p> <p>There are 2 square roots for every whole number, a positive square root called the _____ and a negative square root.</p>				
<p>EXAMPLES</p>	<p>Finding the Square Root of Perfect Squares</p> <p>Directions: Solve each equation by extracting the square root.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">1. $\sqrt{16} = \pm 4$</td> <td style="width: 50%; padding: 5px;">2. $\sqrt{25} =$ _____</td> </tr> <tr> <td style="padding: 5px;">3. $\sqrt{36} =$ _____</td> <td style="padding: 5px;">4. $\sqrt{0} =$ _____</td> </tr> </table> <p style="text-align: center;">These are all perfect squares!</p>	1. $\sqrt{16} = \pm 4$	2. $\sqrt{25} =$ _____	3. $\sqrt{36} =$ _____	4. $\sqrt{0} =$ _____
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<p>Rewriting Radicals</p>	<p>Rewriting Radicals by Extracting Perfect Squares</p> <ul style="list-style-type: none"> ◆ Simplify a radical to find an exact answer. Accuracy is important! ◆ Try to factor out the perfect square(s). 				
<p>EXAMPLES</p>	<p>Directions: Rewrite each radical by extracting the perfect squares.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> 1. $\sqrt{20}$ $\sqrt{4} \cdot \sqrt{5}$ 4 is a perfect square! $2\sqrt{5}$ </td> <td style="width: 50%; padding: 5px;"> 2. $\sqrt{45}$ </td> </tr> </table>	1. $\sqrt{20}$ $\sqrt{4} \cdot \sqrt{5}$ 4 is a perfect square! $2\sqrt{5}$	2. $\sqrt{45}$		
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	3. $\sqrt{50}$	4. $\sqrt{27}$
	5. $\sqrt{48}$	6. $\sqrt{24}$
Approximating Radicals	You can <i>estimate</i> the square root of a number using a calculator and rounding the answer.	
EXAMPLES	Directions: Determine the square root of each radical by finding an approximate value. Round to the nearest 10 th .	
	1. $\sqrt{20}$ ≈ 4.5	2. $\sqrt{45}$
	3. $\sqrt{50}$	4. $\sqrt{27}$
EXIT SLIP	This summer, new square floor tiles will be installed in each classroom. The area of each tile is 18 inches ² . Determine the exact and the approximate length of the tile's side.	