

Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples	
<b>SQUARE ROOTS</b> <i>with Variables</i>	<b>Square roots with variables are also known as monomial square roots.</b> Just like numbers, variables can be simplified.	
	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> <b>GIVEN:</b>  <math>\sqrt{a^m}</math> </div>	<ul style="list-style-type: none"> <li>• <b>IF <math>m</math> IS A MULTIPLE OF 2</b>, use the rule <math>\sqrt{a^m} = \underline{\hspace{2cm}}</math></li> <li>• <b>IF <math>m</math> IS NOT A MULTIPLE OF 2</b>, break it apart: <math>\sqrt{a^m} = \sqrt{a^{m-1} \cdot a}</math></li> </ul>
<b>EXAMPLES</b>	<b>Directions:</b> Simplify each radical.	
	1. $\sqrt{x^2}$	2. $\sqrt{m^6}$
	3. $\sqrt{9k^2}$	4. $\sqrt{64p^4}$
	5. $\sqrt{100x^2y^2}$	6. $\sqrt{49a^2b^6c^4}$
	7. $\sqrt{y^5}$	8. $\sqrt{a^2b^3}$
	9. $\sqrt{x^2y^3z^4}$	10. $\sqrt{144k^3}$
	11. $\sqrt{81r^7s^4}$	12. $\sqrt{196c^5d^2}$