

Name:

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples	
ADDING & SUBTRACTING <i>Radicals</i>	①	SIMPLIFY all radicals.
	②	Identify radicals with the SAME INDEX and SAME RADICAND . Only these can be combined!
	③	For common radicals, add/subtract the coefficients and KEEP THE COMMON RADICAL .
	1. $3\sqrt{27} - 2\sqrt{12}$	2. $3\sqrt[3]{54} - 2\sqrt[3]{2} + 7\sqrt[3]{-16}$
	3. $7\sqrt[4]{48} - 2\sqrt[4]{3} + 3\sqrt[3]{72}$	4. $10\sqrt{28} + \sqrt[3]{-56} - 4\sqrt{175}$
	5. $\sqrt{98x^4y^2} - 3x^2y\sqrt{2}$	6. $\sqrt[3]{-40a^7} + 2a^2 \cdot \sqrt[3]{135a^4}$
MULTIPLYING <i>Radicals</i>	①	Multiply coefficients, then use the PRODUCT RULE : $\sqrt[n]{a} \cdot \sqrt[n]{b} =$
	②	SIMPLIFY the resulting radical.
	7. $\sqrt{27} \cdot \sqrt{5}$	8. $3\sqrt{10} \cdot -2\sqrt{18}$
	9. $2\sqrt[3]{9} \cdot 5\sqrt[3]{-24}$	10. $-3\sqrt[4]{64} \cdot -\sqrt[4]{8}$