

Name:

Unit 9 Day 3 Simplifying and Multiplying Radicals



$$\sqrt{90} \quad \boxed{3\sqrt{10}}$$

$\sqrt{90}$   
 $\uparrow$   
 $9 \quad 10$   
 $\uparrow \quad \uparrow$   
 $(3)(3) \quad (2)(5)$

$$-3\sqrt{72} \quad -3 \cdot 3 \cdot 2\sqrt{2} \quad \boxed{-18\sqrt{2}}$$

$-3\sqrt{72}$   
 $\uparrow$   
 $6 \quad 12$   
 $\uparrow \quad \uparrow$   
 $(2)(3) \quad (2)(6)$   
 $\uparrow$   
 $(2)(3)$

$$\sqrt{2} \cdot 3\sqrt{6} \quad \boxed{6\sqrt{3}}$$

$3\sqrt{12}$   
 $\uparrow$   
 $(3) \quad 4$   
 $\uparrow$   
 $(2)(2)$

$$\sqrt{x^{10}} \quad \boxed{x^5}$$

$$y^3 \sqrt{y^5} \quad y^3 \cdot y^2 \sqrt{y} \quad \boxed{y^5 \sqrt{y}}$$

$$3\sqrt{4x^{18}} \quad 3 \cdot 2x^9 \quad \boxed{6x^9}$$

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$$\sqrt{90}$$

$$-3\sqrt{72}$$

$$\sqrt{2} \cdot 3\sqrt{6}$$

$$\sqrt{x^{10}}$$

$$y^3 \sqrt{y^5}$$

$$3\sqrt{4x^{18}}$$