

Name:

UNIT 9 - RADICALS  
SIMPLIFY RADICALS STUDY GUIDE

$$\sqrt{60}$$

6 10  
2 3 2 5

$$\boxed{2\sqrt{15}}$$

$$-3\sqrt{80}$$

8 10  
2 4 2 5  
2 2

$$\boxed{-12\sqrt{5}}$$

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

$$2\sqrt{6} \cdot 3\sqrt{4}$$

6 24  
6 4  
2 3 2 2

$$\boxed{12\sqrt{6}}$$

$$ab^3\sqrt{a^5b^2}$$
$$a^3b^4\sqrt{a}$$

$$\sqrt{x^3} \cdot \sqrt{x^7}$$
$$\sqrt{x^{10}} = x^5$$

$$\frac{\sqrt{5} \cdot \sqrt{3}}{\sqrt{3}} \quad \boxed{\frac{\sqrt{15}}{3}}$$

$$\sqrt{\frac{6}{5}} \cdot \sqrt{\frac{6}{8}} \cdot \sqrt{\frac{5}{15}} \quad \boxed{\frac{\sqrt{30}}{5}}$$

$$\frac{5}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} \quad \boxed{\frac{5\sqrt{2}}{2}}$$

$$\sqrt{6} + 3\sqrt{24}$$

6 4  
2 3 2 2

$$\sqrt{6} + 6\sqrt{6}$$
$$\boxed{7\sqrt{6}}$$

$$2\sqrt{5} + 3\sqrt{20} - \sqrt{45}$$

5 4 9 5  
2 2 3 3

$$2\sqrt{5} + 6\sqrt{5} - 3\sqrt{5}$$
$$\boxed{5\sqrt{5}}$$

$$\sqrt{2} + 3\sqrt{8}$$

2 4  
2 2

$$\sqrt{2} + 6\sqrt{2}$$
$$\boxed{7\sqrt{2}}$$