## Division of Radicals Answer Key

## Lions, Square Roots, and Fractions, Oh My

Simplify. The answer should not have radicals in the denominator.

1. 
$$\sqrt{\frac{3}{15}}$$

 $\frac{\sqrt{5}}{5}$ 

$$6. \ \frac{7}{\sqrt{7}}$$

 $\sqrt{7}$ 

2. 
$$\sqrt{\frac{60}{45}}$$

 $\frac{\sqrt{12}}{3}$ 

$$7. \ \frac{\sqrt{x^2y}}{\sqrt{xy^2}}$$

$$\frac{\sqrt{xy}}{y}$$

3. 
$$\frac{\sqrt{10}}{\sqrt{2}}$$

 $\sqrt{5}$ 

8. 
$$\frac{\sqrt{324}}{\sqrt{392}}$$

$$\frac{9\sqrt{2}}{14}$$

$$4. \ \frac{\sqrt{x^2+y^2}}{\sqrt{x+y}}$$

$$\frac{\sqrt{x^3 + x^2y + xy^2 + y^3}}{x + y}$$

9. 
$$\frac{\sqrt{y^2 + 5y + 6}}{\sqrt{y^2 + 3y + 2}}$$

$$\frac{\sqrt{y^2 + 4y + 3}}{y + 1}$$

5. 
$$\frac{\sqrt{(5)^2-(3)^2}}{\sqrt{5}}$$

$$\frac{4\sqrt{5}}{5}$$

10. 
$$\frac{\sqrt{a^2-b^2}}{\sqrt{a-b}}$$

$$a+b$$

©2012 Shmoop University, Inc. All rights reserved. For classroom use only. Want to print this out for your classroom? Go for it. All other reproduction and distribution is prohibited.