Radical Arithmetic Worksheet

I Got Arithm

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

1.
$$6\sqrt{27} + \sqrt{3}$$

6.
$$\frac{1+\sqrt{2}}{1-\sqrt{2}}$$

2.
$$3\sqrt{90} - 4\sqrt{160}$$

$$7. \ \sqrt{x^2y}\sqrt{y+\frac{1}{y}}$$

3.
$$2\sqrt{11} - \sqrt{121} + 5\sqrt{11}$$

8.
$$(\sqrt{3} + \sqrt{4})(\sqrt{8} - \sqrt{2})$$

$$4. \ \frac{\sqrt{5x} + \sqrt{13x}}{\sqrt{x}}$$

$$9. \ \frac{\sqrt{9x}}{6+\sqrt{x}}$$

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

$$10. \ \frac{\sqrt{a} - \sqrt{b}}{\sqrt{a} + \sqrt{b}}$$

©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.