
Perform Operations with Radical Expressions

(11-1, 11-2)

Simplify each expression.

1. $5\sqrt{48}$ 1. _____

2. $\sqrt{108x^7y^{10}}$ 2. _____

3. $\sqrt{2h^2} \cdot \sqrt{90h}$ 3. _____

4. $\sqrt{\frac{68}{25}}$ 4. _____

5. $\sqrt{\frac{60w^{12}}{48w^5}}$ 5. _____

6. $\frac{6}{\sqrt{3}}$ 6. _____

7. $4\sqrt{17} - 9\sqrt{17} + \sqrt{17}$ 7. _____

8. $\sqrt{18} - \sqrt{128} - \sqrt{2}$

8. _____

9. $\sqrt{5}(2\sqrt{3} + 4\sqrt{5})$

9. _____

10. $(\sqrt{3} + 2\sqrt{11})(5\sqrt{3} - 3\sqrt{11})$

10. _____

11. $(8 + \sqrt{3})(8 - \sqrt{3})$

11. _____

12. $(5 - \sqrt{2})^2$

12. _____