

Algebra II
Exponents – More Practice

Name _____

Simplify. Your answer should have no negative exponents. Do not use a calculator!!

1. $\frac{(2w^2k^4)^3}{(-wk^5)^2(w^4k^2)}$

2. $\left[(2ef^3g^2)^2 \cdot (3efg^3) \right] \div (9e^6f^2g)$

3. $\frac{(3a^2b^{-5})^{-2}(2a^2b)^4}{(-6a^{-4})^{-2}(3a^{-6}b^3)^2}$

4. $\left(\frac{8x^{-9}}{y^{-6}} \right)^{\frac{2}{3}}$

5. $\sqrt{56w^3y^6}$

6. $\sqrt[3]{4m^2} \cdot \sqrt[3]{18m^3n^{10}}$

7. $\left(x^{\frac{1}{4}} y^{\frac{3}{8}} \right)^{16}$

8. $(32x^{20}y^{-10})^{\frac{3}{5}}$

9. $-\sqrt{7x} + 3\sqrt{28x}$

10. $(6 - \sqrt{7})(1 - \sqrt{7})$

11. $\frac{\sqrt[4]{y^3}}{\sqrt[5]{y^4}}$

12. $\left(\frac{5t^0 - 3}{9s^2} \right)^{-1}$

13. $\frac{2^{-5}(a^{-3}b^2)^{-1}}{(2^{-4})^3 a^4 (bk^{-1})^{-2}}$

14. $\frac{\sqrt[3]{x^2y^5}}{\sqrt[3]{x \cdot y^4}}$

15. Rewrite $\sqrt{2x^5} \cdot \sqrt{12x^4}$ in the form $a \cdot x^k$ where k is a rational number and a is a reduced radical.