

Practice: Exponents and Exponential Functions Part 1 (7.1-7.4)

Simplify.

1. $(r^3)(2r^5)$

2. $(x^5)^4$

3. $(-4t^2n^3)(3tn^4)$

4. $(-5x^4y^2)^3$

5. $(2cd)^2(-4c^3)^2$

6. $(5y^2w^4)^2 + 2(yw^2)^4$

Simplify. Assume that no denominator is equal to zero.

7. $\frac{6^{15}}{6^9}$

8. $\frac{y^8}{y^3}$

9. $\frac{r^6n^{-7}}{r^4n^2}$

Simplify.

10. $\sqrt[4]{81}$

11. $4^{\frac{3}{2}}$

Solve each equation.

12. $5^x = 125$

13. $2^{5x-4} = 64$

14. Write $2\sqrt{7xy}$ in exponential form.15. **MULTIPLE CHOICE** Write $16mn^{\frac{1}{2}}$ in radical form.

A $4\sqrt{mn}$

C $4\sqrt{mn}$

B $16m\sqrt{n}$

D $16\sqrt{mn}$