

Division Properties of Exponents Assignment

Simplify the following expressions.

1. $\frac{k^{10}}{k^6}$

2. $\frac{ab^2}{a^3b}$

3. $\frac{g^4}{g^{-2}}$

4. $\frac{2^5}{2^3}$

5. $\frac{5^2}{5^5}$

6. $\frac{5^2x^4}{5^4x^2}$

7. $\frac{6^3v^4w^5}{6v^7w^3}$

8. $\frac{3^3a^4b^5}{3^5a^2b^3}$

9. $\frac{3^{-3}}{3^{-7}}$

10. $\frac{r^{-7}}{r^{-3}}$

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Evaluate the following using properties of powers.

11.
$$\left(\frac{4a^3}{2a^2}\right)^3$$

12.
$$\left(\frac{3xy^2}{9x^4}\right)^2$$

13.
$$\left(\frac{x^5}{2x^3}\right)^2$$

14.
$$\left(\frac{-2x^2}{x^4}\right)^3$$

15.
$$\left(\frac{12x^3y^4z}{18x^2y^6}\right)^2$$

16.
$$\left(\frac{10y^2}{y}\right)\left(\frac{4xy^4}{xy^3}\right)$$

17.
$$\left(\frac{12x^3y^2}{ab}\right)\left(\frac{a^6b^5}{4x^4y^4}\right)$$

18.
$$\left(\frac{20cd}{ab^3}\right)\left(\frac{a^5b}{5c^3d}\right)$$

19.
$$\left(\frac{4x^4}{32x}\right)^3\left(\frac{4}{x^3}\right)^3$$

20.
$$\left(\frac{8x^2}{x^3}\right)^4\left(\frac{x}{4}\right)^4$$