

8.3 Quotient of Powers WS

You Are: _____

#1-4, Practice your newest exponent law: division.

1. $\frac{h^5}{h^9}$

2. $\frac{7^8}{7^3}$

3. $\frac{36p^3y}{33p^7y^6}$

4. $\frac{2c^2}{d} \div \frac{c^8}{d^3}$

5. $\frac{(10m)^5}{(10m)^3}$

#6-17, now you know the rules of exponents. Can you put them *all* together?

6. $\frac{5a^{10}p^9}{15a^4p^8}$

7. $\frac{y^3}{y^{-5}}$

8. $\frac{x^{-1}y^{-2}}{x^3y^{-5}}$

9. $\left(\frac{b^{-3}}{b^{-6}}\right)^4$

10. $-2s^{-3}q(7s^8q^5)$

11. $\left(\frac{3x}{y}\right)\left(\frac{x}{6x^2y^5}\right)$

12. $\frac{w^{-2}xy^4}{w^7x^{-3}y^6}$

13. $\frac{5uv^6}{u^2v^2}$

14. $\frac{m^{13}n}{5m^5} \cdot \left(\frac{n^4}{m^6}\right)^2$

15. $\left(\frac{3}{4x^{-5}}\right)\left(\frac{4x}{3y}\right)^2$

16. $\left(\frac{-10m^3n}{m^{-2}}\right)^{-1}$

17. $gh^7(-4g^{11}h^3)^2$

18. How about this? Can you write it as a single power? $\frac{8^5}{8^m}$