

Practice 8-4

⑪

$$(3f^4g^{-3})^3(fg^{-2})^{-1}$$

$$(3^3f^{12}g^{-9})(f^{-2}g^2)$$

$$\frac{27f^{12}g^2}{g^9f^2} = \boxed{\frac{27f^{10}}{g^7}}$$

Practice 8-5

⑫

$$\left(\frac{X^3Y^{-2}}{Z^{-5}}\right)^{-4} = \frac{X^{-12}Y^8}{Z^{20}}$$

$$= \frac{Y^8}{X^{12}Z^{20}}$$

⑭ $(a^3b^4)^{-2}(a^{-3}b^{-5})^{-4}$ * Power to Power first!

$$(a^{-6}b^{-8})(a^{12}b^{20})$$

$$\boxed{a^6b^{12}}$$

* If we add exponents, we won't have negatives anymore!



Choose

12 problems

Unit 8 Day 2 Homework Exponent Rules Practice

Name _____

Practice 8-3

2. $(-8m^4)(4m^8)$

5. $3^8 \cdot 3^5$

8. $(-1.5a^5b^2)(6a)$

11. $p^5 \cdot q^2 \cdot p^4$

14. $x^{-9} \cdot x^3 \cdot x^2$

17. $b^7 \cdot b^{13}$

20. $(6r^4s^3)(9rs^2)$

Practice 8-4

2. $(2^{-3})^4$

5. $2^5 \cdot (2^4)^2$

8. $(x^5y^3)^3(xy^5)^2$

11. $(3f^4g^{-3})^3(f^2g^{-2})^{-1}$

14. $(a^3b^4)^{-2}(a^{-3}b^{-5})^{-4}$

17. $(m^{-5})^{-3}$

20. $n^6 \cdot (n^{-2})^5$

Practice 8-5

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

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

10. $\frac{7^{-4}}{7^{-7}}$

14. $\frac{z^7}{z^{-3}}$

18. $\left(\frac{2^3m^4n^{-1}}{p^2}\right)^0$