

Name _____ Per # _____ ENRICH PRACTICE
Math 8 Date _____

Exponents and Multiplication & Division of Monomials

Simplify each. Write answers with positive exponents.

1) $15^{-4}(15^8)$

2) $a^7(a^8)(a)$

3) $(3m^4n^6)(2mn)^0(2m^2n)$

4) $\frac{-28a^6b^{-3}c^5}{7a^{11}b^{-5}c^5}$

5) $(-1x^5y^6)^{10}$

6) $\frac{(-2ab^7)^3}{(-a^4b^2)^5}$

7) $\frac{2x^4y^3}{(3z^{-3})^2} \cdot \frac{(3z^7)^2}{2xy^6}$

8) $(5m^3n)(-2mn^3)$

9) $(7ab)(-a^4b^3)^2(2a^5b^6)^{-1}$

10) $(-9x^3y^4)\left(\frac{1}{3}x^5\right)(-2y^2)$

SOLUTIONS on back

ANSWER KEY

1) 15^4

2) a^{16}

3) $6m^6n^7$

4) $\frac{-4b^2}{a^5}$

5) $x^{50}y^{60}$

6) $\frac{8b^{11}}{a^{17}}$

7) $\frac{2x^3z^{20}}{y^3}$

8) $-10m^4n^4$

9) $\frac{7a^4b}{2}$

10) $6x^8y^6$