

NAME _____ **DATE** _____ **PER.** _____

Negative and Zero Exponents

Simplify each expression.

1) $6^{-2} =$	2) $3^0 =$	3) $5t^{-2} \cdot 2t^{-5} =$
4) $(-2n^4)(2n^{-1}) =$	5) $(-2m^3)(3m^{-3}) =$	6) $(3a^{-2}b^2)(-4a^6b^{-2})$
7) $(2^0m^{-1}n^2)(m^7n) =$	8) $\frac{x^{-1}y^2}{x^3y} =$	9) $\frac{a^2b^{-1}c^4}{ab^4c^{-3}}$
10) $\frac{-3a^{-4}b^5}{15a^3b^3}$	11) $\frac{28x^{-1}y^3}{-4x^6y^0}$	12) $(3u^7v^{-2})(-6uw^{-5})(3v^5w^3) =$
13) $(2p^6)^0 =$	14) $2x^0y^{-4} =$	15) $(3b^{-2})^2(a^2b^4)^3 =$
16) $(t^{-2})^2(t^5)^2 =$	17) $(6a^{\frac{1}{3}}c^2)(-4a^{\frac{1}{5}}b^3c^0)(2a^{\frac{2}{3}}bc) =$	18) $\frac{(m^2n^4)(8mn)}{-2m^6n^2}$

19) Simplify the expression $\left(\frac{x^2}{x^{-3}}\right)^4$ using positive exponents.

20) If $x = -3$ and $y = 7$, find the value of x^2y^3 .

REVIEW.

21) Solve and graph: $3k - 7(k + 5) > 29$



22) Solve and graph: $15 \leq \frac{31+k}{3} \leq 19$

