Notes #1 ~ Sect. 8.1: Zero & Negative Exponents

Zero as an Exponent : for every nonzero number a, $a^0 = 1$.

Negative Exponent : for every nonzero numbers a and integer n, $a^{-n} = \frac{1}{a^n}$.

Ex. 1 : Simplify.

a) 3^{-2}

b) $(-22.4)^0$

c) $(-4)^{-3}$

d) $(-3)^{-2}$

e) -3^{-2}

Ex. 2 : Simplify each expression.

a) $3ab^{-2}$

b) $\dfrac{1}{x^{-3}}$

c) $7s^{-4}t^{2}$

d) $\dfrac{2}{a^{-4}}$

e) $\dfrac{n^{-5}}{v^{2}}$