1.1 Zero Exponents

Remember that $n^x \times n^y = n^{x+y}$

So, fill in the blanks...

$$2^2 * 2^0 = 2 \_ ^{+} \_$$

Simplified, this equation can be stated as:

$$2^2 * 2^0 = 2^{\ 2}$$

(Easy question: why? _____)

Since $2^2 = 2^{\ 2}$

What must 2^0 in ***this*** *equation be?*

_____

The above would be true for any number "x" with any exponent "y" in $x^y * x^0$. So x^0 always equals 1.

1.2 Negative Exponents

Remember that $n^x \times n^y = n^{x+y}$

So, fill in the blanks...

$$2^3 * 2^{-2} = 2 \_ ^{+} \_$$

Simplified, this equation can be stated as:

$$2^3 * 2^{-2} = 2^{\ 1}$$

(Easy question: why? _____)

Since 8 * (1/4) = 2

What must 2^{-2} in ***this*** *equation be?*

_____

The above would be true for any number "x" with any exponents "y" and "z" in $x^y * x^{-z}$. So x^{-z} always equals $1/x^z$.