

Product

$$X^n \cdot X^m = X^{n+m}$$

$$4x^2y^2 \cdot 3x^3y^2 = 12x^{2+3}y^{2+2}$$
$$= 12x^5y^4$$

Negative

$$x^{-a} = \frac{1}{x^a} \quad \frac{1}{x^{-b}} = \frac{x^b}{1}$$

$$\frac{-2xy^{-5}}{z^{-2}} = \boxed{\frac{-2xz^2}{y^5}}$$

Zero

$$X^0 = 1$$

No matter
what!

$$4^0 = 1$$

$$z^0 = 1$$

$$5,000,000^0 = 1$$

$$98^0 = 1$$

Scientific Notation

$$3.908 \times 10^9 = 3908000000.$$

$3.908E9$ $3,908,000,000$

$$5.67 \times 10^{-6} = 0.00000567$$

$5.67E-6$ 0.00000567