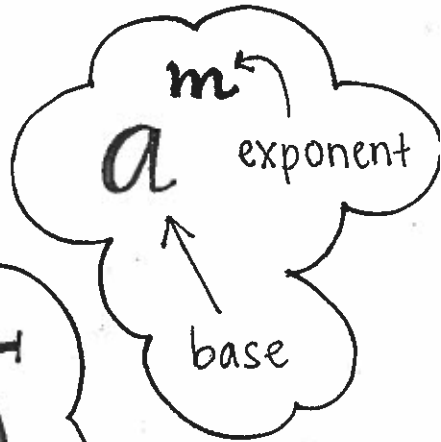


Properties of EXPONENTS



$a^m \cdot a^n = a^{m+n}$
PRODUCT OF POWERS

POWER OF A POWER
 $(a^m)^n = a^{m \cdot n}$

POWER OF A PRODUCT
 $(ab)^m = a^m b^m$

$a^0 = 1$
ZERO EXPONENT

QUOTIENT OF POWERS
 $\frac{a^m}{a^n} = a^{m-n}$

NEGATIVE EXPONENTS
 $a^{-m} = \frac{1}{a^m}$

POWER OF A QUOTIENT
 $\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$

RADICAL Notation

CONVERSION

$\left(\sqrt[n]{a}\right)^m \leftrightarrow a^{\frac{m}{n}}$

PRODUCT
 $\sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$

QUOTIENT
 $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$