



Vocabulary: Dividing Exponential Expressions



Vocabulary

- **Base** – a number or expression raised to an exponent.
 - For example, in the expression 5^3 , 5 is the base.
- **Exponent** – a number, written to the right of and just above a number or expression, that indicates how many times the number or expression is multiplied by itself.
 - For example, in the expression 5^3 , 3 is the exponent.
 - The expression 5^3 equals $5 \cdot 5 \cdot 5$, or 125.
 - *Power* is another name for exponent.
 - For example, 6^5 is read “6 to the fifth power.”
 - The exponents 2 and 3 have special names – 2 is “squared” and 3 is “cubed.”
 - For example, 4^2 is read “four squared.”
 - For example, 4^3 is read “four cubed.”
 - A negative exponent means to divide by that many factors.
 - For example, 5^{-3} means $\frac{1}{5^3} = \frac{1}{125}$.
 - A number raised the zero power equals 1.
 - For example, $5^0 = 1$.
- **Expression** – a combination of one or more numbers, one or more variables, and one or more arithmetic operations.
 - For example, $x - 2$, $8m$, $r \div 6$, 7 , $3x + 4$, $9x^3y^2$, $(2 + (\frac{5}{11})^2 - 0.3)$, and $\frac{2x^2}{3y^3}$ are all expressions.

