7-2 dividing monomials.

To divide two powers with the same base, subtract the exponent.

Example:

$$\frac{b^{15}}{b^{7}}=b^{15-7}=b^{8}$$

To find the power of a quotient, find the power of the numerator and the power of the denominator.

Example:

$$(\frac{a}{b})^{m}=\frac{a^{m}}{b^{m}}$$

Any nonzero number raised to the zero power is 1.

Example

$$a^{0}=1$$

For any nonzero number a and any integer n, $a^{-n}$ is the reciprocal of $a^{n}$.

Example:

$$5^{-2}=\frac{1}{5^{2}}=\frac{1}{25}$$