

Dividing Monomials Exploration

Complete the table below. Expand each expression into factored form. Find all forms of one (FOO's) and then write the new simplified form as shown in the example.

Original Form	Factored Form	Simplified Exponent Form
$\frac{x^7}{x^3}$	$\frac{x \cdot x \cdot \cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot x \cdot x}{x \cdot x \cdot x}$	x^4
$\frac{2^4}{2^2}$	$\frac{\cancel{2} \cdot \cancel{2} \cdot 2 \cdot 2}{\cancel{2} \cdot \cancel{2}}$	2^2
$\frac{3^4}{3^5}$	$\frac{\cancel{3} \cdot \cancel{3} \cdot \cancel{3} \cdot \cancel{3}}{\cancel{3} \cdot \cancel{3} \cdot \cancel{3} \cdot 3 \cdot 3}$	$\frac{1}{3}$
$\frac{x^3 y^2}{x y^2}$	$\frac{\cancel{x} \cdot x \cdot \cancel{y} \cdot \cancel{y}}{\cancel{x} \cdot \cancel{y} \cdot \cancel{y}}$	x^2
$\frac{x^8 y^5}{x^4 y^2}$	$\frac{\cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot x \cdot x \cdot x \cdot x \cdot \cancel{y} \cdot \cancel{y} \cdot y \cdot y \cdot y}{\cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot \cancel{y} \cdot \cancel{y}}$	$x^4 y^3$