

Examples of student work:

3.	$\frac{x^2y^3}{xy^5}$	Workspace
	a) xy^{-2} b) x^2y^{-2} c) x^3y^8 X d) xy^2	
	Explain your reasoning: you subtract the exponents and you get xy^2	

3.	$\frac{x^2y^3}{xy^5}$	Workspace
	a) xy^{-2} X b) x^2y^{-2} c) x^3y^8 d) xy^2	$\begin{array}{r} x^2 \\ \div x \\ \hline x \end{array} \quad \begin{array}{r} y^3 \\ \div y^5 \\ \hline y^{-2} \end{array}$
	Explain your reasoning: $2 \div 1 = 1$ and $3 \div 5 = -2$ so add the exponents and that simple	

3.	$\frac{x^2y^3}{xy^5}$	Workspace
	a) xy^{-2} b) x^2y^{-2} c) x^3y^8 X d) xy^2	$\begin{array}{r} x^2y^3 \\ \div xy^5 \\ \hline xy^2 \end{array}$
	Explain your reasoning: All you do is subtract the 2 and 1 above the "x" and then that equals "x" and then you subtract the 5 and 3 and that equals "2" you put them both together and that equals "xy ² " !!	

3. $\frac{x^2y^3}{xy^5}$ a) xy^{-2} b) x^2y^{-2} c) x^3y^8 d) xy^2	Workspace $\frac{x \cdot x \cdot \cancel{y} \cdot \cancel{y} \cdot \cancel{y}}{x \cdot \cancel{y} \cdot \cancel{y} \cdot \cancel{y} \cdot \cancel{y}} \quad x y^{-2}$
Explain your reasoning: when dividing like bases you subtract the exponents and keep the base the same. If coefficients are present divide or reduce the fraction.	

3. $\frac{x^2y^3}{xy^5}$ a) xy^{-2} b) x^2y^{-2} c) x^3y^8 d) xy^2	Workspace $\frac{x^2y^3}{xy^5} \quad \begin{matrix} 2-1 = x \\ 3-5 = y^{-2} \end{matrix}$
Explain your reasoning: when you divide exponents, you divide the bases, then you subtract the bottom from the top.	

3. $\frac{x^2y^3}{xy^5}$ a) xy^{-2} b) x^2y^{-2} c) x^3y^8 d) xy^2	Workspace $x y^{-2} \quad \frac{1x}{y^2}$
Explain your reasoning: subtract, simplify	

6. $\frac{12x^{10}y^6}{4x^5y^2}$ a) $3x^2y^3$ b) $3x^{15}y^8$ c) $8x^5y^4$ d) $3x^5y^4$	Workspace $\frac{12x^{10}}{4x^5} \quad \frac{y^6}{y^2}$ $3x^2 \quad y^3$
Explain your reasoning: $12 \div 4 = 3$, $10 \div 5 = 2$ $6 \div 2 = 3$ so put them together and its $3x^2y^3$	