10/2 Algebra I - Downing

2.5C Division Property of Exponents

★ Subtract your exponents
- Take the bigger exponent and subtract the smaller - where the bigger one was is where the base will stay

Ex) $\frac{x^7}{x^3} = \frac{x\cdot x\cdot x\cdot x\cdot x\cdot x\cdot x}{x\cdot x\cdot x} = x^4$

Ex) $\frac{x^2}{x^5} = \frac{x\cdot x}{x\cdot x\cdot x\cdot x\cdot x} = \frac{1}{x^3}$

Ex) $\frac{3x^4y^7}{9x^8y^1} = \frac{1y^6}{3x^4} = \boxed{\frac{y^6}{3x^4}}$

Ex) $\frac{8x^4y^{-3}}{6x^2y^5} = \frac{4}{3y^3y^5} = \boxed{\frac{4}{3y^8}}$

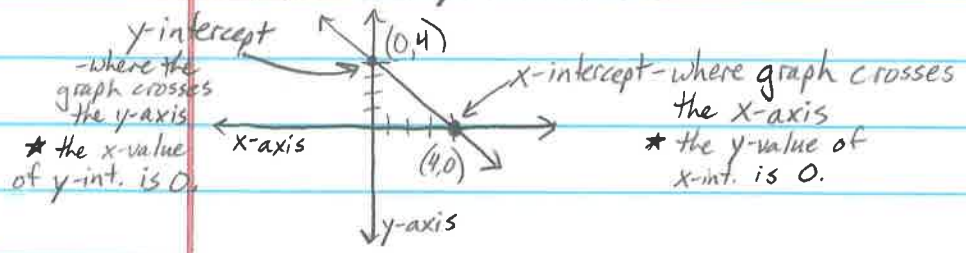
Ex) $\left(\frac{x^4y^8}{x^9y^2}\right)^{-3} = \left(\frac{y^6}{x^5}\right)^{-3} = \frac{y^{-18}}{x^{-15}} = \boxed{\frac{x^{15}}{y^{18}}}$

Ex) $\frac{(x^2y^3)^4}{x^{-5}y^2} = \frac{x^8y^{12}x^5}{y^2} = \boxed{x^{13}y^{10}}$

Work on back side of worksheet → this is HW

Go over HW

3.4 x and y intercepts



Use intercepts to graph $3x + 4y = 12$

x-intercept (replace y with 0)

y-intercept (replace x with 0)