U3:L5 Dividing Polynomials

Just like <u>multiplication</u> of polynomials, division **does not** require you to combine <u>like terms</u>.

Instead, you will divide Coefficients and Variables by themselves.

Just as with multiplication, variables do not need to be separated by degree

Dividing Polynomials by a Constant

Examples:

$$(3f^2 - 12fg + 9g^2) \div 3$$

Re-write as a fraction:

Spljt the fraction into the sum of 3 fractions:

35 12 192 f2 - 4f9 + 3g2

Find 3 quotients and combine final answer:

$$\frac{15gh + 45g^2 - 100h}{-5}$$

Split the fraction into the sum of 3 fractions:

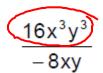
15gh + 45ga 100h -8 -8

Find 3 quotients and combine final answer:

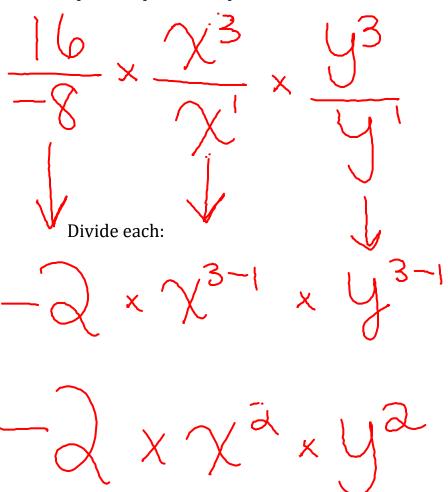
[-3gh-9ga+20]

-3gh = (=20h)

Dividing a Polynomial by a Monomial



Split the quotient expression into the **sum** of fractions:



Combine your final answer:

