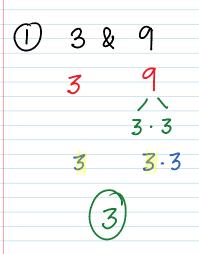
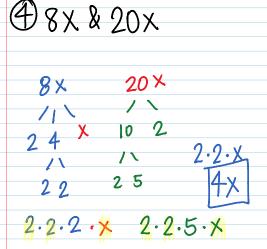
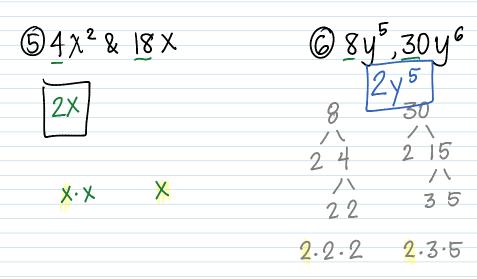
## 9.4A Notes: The Greatest Common Factor

A GCF, or the greatest common factor, is the largest monomial that divides evenly into each term of a polynomial

Part 1. Find the GCF of the following #'s & monomials:







PART 2: Factoring out a GCF (reverse of distribution)

Example:

3x(4x5+3) multiplies out to: 12x6+9x

So factoring focuses on <u>undoing</u> multiplication. We are <u>dividing</u> out the GCF.

Factor out the GCF of the following polynomials

$$\frac{912m^{4}n^{4} + 3m^{3}n^{2} + 6m^{2}n^{2}}{3m^{2}n^{2}(4m^{2}n^{2} + m + 2)}$$

$$8 - 2g^{4} + 14g^{2} + 6g$$
$$-2g(g^{3} - 7g - 3)$$