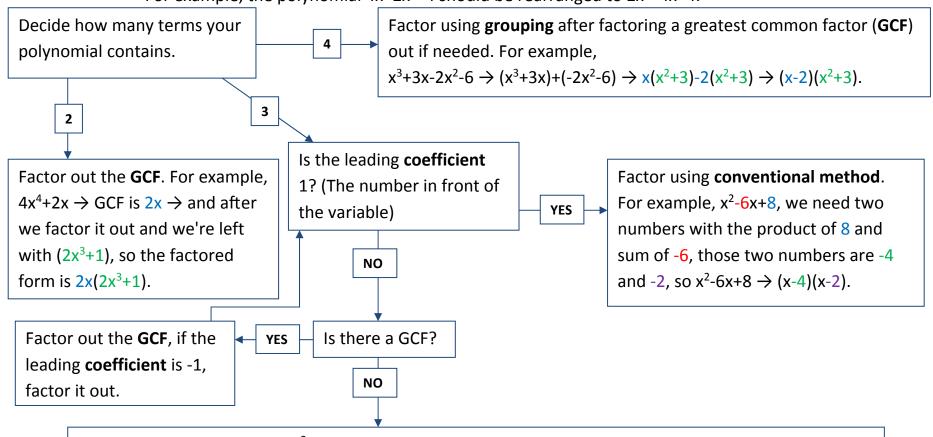
Factoring Cheat Sheet

Step 1) Rearrange polynomial terms so that the **degree**, the exponent of the term, goes from largest to smallest. For example, the polynomial $4x+2x^2+4$ should be rearranged to $2x^2+4x+4$.



Use the **AC method**: $p(x) = 3x^2-8x+4$. Multiply the leading **coefficient** by the third **coefficient**, $3 \times 4 = 12$. So we need two numbers with the product of 12 and sum of -8, those two numbers are -6 and -2, so we will expand p(x) from $3x^2-8x+4 \rightarrow 3x^2-6x-2x+4$, then apply the grouping method $3x^2-6x-2x+4 \rightarrow (3x^2-6x)+(-2x+4)$ and then factor out the **GCF** of each group $(3x^2-6x)+(-2x+4) \rightarrow 3x(x-2) + -2(x-2)$ then factor out the **GCF** of the two terms and we end with (3x-2)(x-2).