

GCF, then SPF (2 step factoring)

March 4, 2020 1:28 PM

⊗ Always look to factor out a GCF as the 1ST step.

⊗ Then use the SPF method to factor the resulting trinomial.

Ex. Factor fully:

$$\textcircled{1} \quad \frac{7x^2}{7} + \frac{35x}{7} + \frac{42}{7}$$

$$7(x^2 + 5x + 6)$$

$$S = 5$$

$$MN's = 2, 3$$

$$P = 6$$

$$7(x+2)(x+3)$$

$$\textcircled{2} \quad \frac{-3x^2}{-3} + \frac{3x}{-3} + \frac{60}{-3}$$

$$-3(x^2 - x - 20)$$

$$S = -1$$

$$P = -20$$

$$-3(x+4)(x-5)$$

	-20
-1	20
1	-20
-2	10
2	-10
-4	5
4	-5

$$\textcircled{3} \quad \frac{10x^4}{10x^2} + \frac{100x^3}{10x^2} + \frac{160x^2}{10x^2}$$

$$10x^2(x^2 + 10x + 16)$$

$$S = 10$$

$$P = 16$$

$$MN's = 2, 8$$

$$10x^2(x+2)(x+8)$$