

November 6, 2015
 My new Office
 #540

Nov 6-9:10 AM

#3) $16b^2 - 40b + 25$ $ac = 400$
 $bc = -40$
 $\frac{-20 \pm \sqrt{20^2 - 400}}{2}$
 ① GCF? no
 ② Factor ac & b method
 $16b^2 - 20b - 20b + 25$
 $4b(4b - 5) - 5(4b - 5)$
 $(4b - 5)(4b - 5)$
 $(4b - 5)^2$

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#12)
 $3 + 6b + 3b^2$
 $3b^2 + 6b + 3$
 ① GCF = 3
 $3(b^2 + 2b + 1)$
 ① GCF = 1
 ② ac & b $ac = 1$
 $b = 2$
 $\begin{array}{c} + \\ + \\ \hline 1 \end{array}$
 $3(b^2 + b + b + 1)$
 $3(b(b+1) + 1(b+1))$
 $3(b+1)(b+1) \rightarrow 3(b+1)^2$

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$5x^2 - 44x + 120 = -30 + 11x$
 ① Solving for x
 * do set equal to zero on one side
 $5x^2 - 44x - 11x + 120 + 30 = 0$
 $5x^2 - 55x + 150 = 0$
 ① GCF = 5
 $5(x^2 - 11x + 30) = 0$
 ① GCF = 1
 ② ac & b $ac = 30; b = -11$
 $5(x^2 - 6x - 5x + 30) = 0$
 $5(x(x-6) - 5(x-6)) = 0$
 $5(x-6)(x-5) = 0$
 fully factored
 $(5x-30)(x-5) = 0$
 ① $5x-30=0$
 $5x = 30$
 $x = 6$
 ② $x-5=0$
 $x = 5$

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$x = 6$
 $5(6)^2 - 44(6) + 120 = -30 + 11(6)$
 $5(36) - 264 + 120 = -30 + 66$
 $180 - 264 + 120 = 36$
 $-84 + 120 = 36$
 $36 = 36$

Nov 6-9:35 AM

① $(2m + 3)(4m + 3) = 0$
 ① $2m + 3 = 0$ via zero factor prop.
 $2m = -3$
 $m = -\frac{3}{2}$
 ② $4m + 3 = 0$
 $4m = -3$
 $m = -\frac{3}{4}$

Nov 6-9:45 AM

Zero Factor Prop.

$$ab = 0$$

$$(x+2)(x+3) = 0$$

Nov 6-9:48 AM