

Ch 7. Quadratic EquationsFactoring review:Guidelines for factoring

1. Put in descending order
2. Factor out GCF
3. If $x^2 + bx + c$ use product/sum
4. If $ax^2 + bx + c$ use decomposition, or the box method.
5. If difference of squares leave order as is and factor using the pattern.

Ex: Factor: $3x^2 + 27x + 60$
 $3(x^2 + 9x + 20)$
 $3(x + 4)(x + 5)$

Ex ② Factor: $5x^2 - 80$
 $5(x^2 - 16)$
 $5(x + 4)(x - 4)$

Ex ③ Factor: $5x^2 + 9 - 18x$
 $5x^2 - 18x + 9$
 $5x^2 - 15x - 3x + 9$
 $5x(x - 3) - 3(x - 3)$
 $(5x - 3)(x - 3)$

$$\begin{array}{r} 45 \\ \hline -15 \\ \hline -15 \end{array}$$