Factoring Practice

Factoring Monic Quadractics Using Product-Sum Method

1. $x^2 + x - 6$
2. $x^2 - 19x + 60$
3. $x^2 + 10x + 25$
4. $x^2 - 3x - 54$
5. $x^2 + 5x + 9$

Sum and Difference of Squares

1. $x^2 - 36$
2. $121 - 4x^2$
3. $x^2 + 15$
4. $x^2 - 15$

Sum and Difference of Cubes

1. $x^3 + 27$
2. $8x^3 + 125$
3. $x^3 - 64$
4. $216 - 125x^6$

Greatest Common Factor

1. $4x^4 - 36x^3$
2. $x^4e^x - 16x^3e^x - 36x^2e^x$
3. $3x^5y^3 + 5x^2y^2 - 15x^2y^3$
4. $17x^5 + 17x^2$

Factoring By Grouping

1. $x^3 + 2x^2 + 2x + 4$
2. $2x^3 + 3x^2 - 6x - 12$
3. $30x^3 - 6x^2 + 15x - 3$

Factoring Non-Monic Quadractics

1. $2x^2 - 7x - 4$
2. $4x^2 + 17x + 18$
3. $6x^2 - 23x + 20$

Combining it All

1. $3x^2 + 21x + 30$
2. $6x^2 - 22x + 20$
3. $216 - 27x^3$