10.2 – Factoring I

I. COMMON FACTORS: Always look for common factors first. If the leading coefficient is negative, factor negative one out of every term.

Examples:

1. $3x^{2}+6x$ 2. $25y^{3}-30y^{2}$

3. $-4x^{2}-8x-6x^{3}$ 4. $-6x^{2}+15x$

II. DIFFERENCE OF SQUARES: $a^{2}-b^{2}=\left(a+b\right)\left(a-b\right)$

5. $x^{2}-9$ 6. $4x^{2}-y^{2}$

7. $25x^{2}-49y^{2}$8. $125x^{2}-80$

9. $x^{2}+9$