Factoring: ALWAYS LOOK FOR A GCF FIRST!!!!!!

Examples:

1. 3x3 – 15x2 B. 15x4 – 10x C. 3x3 – 12x2 – 3x

Practice:

1. 4x3 – 8x2 2. 2x5 + 6x3 3. 4x3 + 2x2 – 6x

Binomials: Difference of two squares: a2 – b2 = (a + b)(a – b)

D. x2 – 16 E. 9x2 – 121 F. 50x2 – 8y2

4. x2 – 36 5. 49x2 – 64y2 6. 27x3 – 3x

Trinomials: when a = 1 x2 + bx + c

The factors of c must sum to b

G. x2 – 8x + 12 H. x2 + 9x + 18 I. x2 – 2x – 8

7. x2 + 5x + 6 8. x2 – 5x – 36 9. x2 – 9x + 8

Trinomials when a $>$ 1 ax2 + bx + c

1. Multiply a\*c
2. The factors of a\*c must sum to b
3. Rewrite original trinomial, but use the factors from step two to expand b
4. Factor the GCF from the front and the back
5. Factor the GCF binomial

J. 2x2 – 15x + 18 K. 6x2 + 7x – 5

L. 6x2 + 5x – 6 M. 4x2 +5x – 6

10. 5x2 + 13x – 6 11. 2x2 – x – 6

12. 12x2 + x – 1 13. 3x2 + 7x + 4

14. 10x2 – 17x + 3 15. 9x2 – 12x + 4