**Honors Math 2**

**Factor by Grouping and Difference of Squares**

**Steps for Factoring**

1. Check for **GCF** (greatest common factor) first
2. If there are two terms, check for the difference of two squares: **a2 – b2 = (a + b)(a – b)**
3. If there are three terms, use Trial and Error to try to factor into two binomials.
4. If there are four terms try to factor by grouping, which may result in two binomials.

**Factoring the difference of squares:**

1. y2 – 121 2. t4 – 64

3. b2 – 144 4. 225 – n2

5. 8x2 – 50 5. P2 – 81r2

**Factor by Grouping**

1. a2x – bx + a2y – by 2. b3 – 3b2 + 4b – 12

3.  4. 

5.  6. 2x2 + 6x + 5x + 15

**Mixed Problems:**

1. 9x2 – 4 2. 

3. 100x2 – 1 4. b4 – x2

5. 12x2 – 17x – 5 6. 16x2 + 9

7. 3x – 12x3 8. 

9.  10. 20x2 - 45

11. x2 – 30 12. a2 – 3a – 28