**Factoring Strategies**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Greatest Common Factor** | **Difference of Squares** | **Guess and Check** | **Grouping** | **Sum or Difference of Cubes** |
| **2 Terms** | **🗸** | **🗸** |  |  | **🗸** |
| **3 Terms** | **🗸** |  | **🗸** |  |  |
| **4 Terms** | **🗸** |  |  | **🗸** |  |

**Greatest Common Factor**

What is the greatest thing they all share?

3y5 – 24y2 2x2 – 8x4

**Difference of Squares**



a2b2 – 9 12x2 – 75y2

**Guess & Check (T- Chart)**

### Trinomial Factors

 + + ( + )( + )

 - + ( - )( - )

 + - ( + )( - )

 - - ( + )(- )

 x2 – 6x + 8

**Grouping**

Factor out the GCF of 1st two terms and the GCF of last two terms. Success if same factors occur in both - write what they share in one parenthesis and what’s left in another.

x4 – 2x3 + x – 2 x3 – 2x2 – 9x + 18

**Sum and Difference of Two Cubes**

u3 + v3 u3 – v3

(u + v)(u2 – uv + v2) (u – v)(u2 + uv + v2)

x3 – 64 -16x5 – 250x2