

FACTORIZING

*1. GCF (GREATEST COMMON FACTOR)

2. GROUPING (4 OR MORE TERMS)

3. P-S-D (Form: $x^2 + bx + c$)

4. KEY # (Form: $ax^2 + bx + c$)

5. DOTS (2 TERMS WITH A MINUS BETWEEN THEM)

6. DIFF OF 2 CUBES
(2 TERMS WITH A MINUS BETWEEN THEM)

7. SUM OF 2 CUBES
(2 TERMS WITH A PLUS BETWEEN THEM)

2. $8x - 64$

$8(x - 8)$

$8(x - 8)$

3. $4x^3 - 12x^1$

$4x(x^2 - 3)$

$4x(x^2 - 3)$

5. $x^2 - 12x + 32$

$(x - 4)(x - 8)$

<u>P</u> _{rod}	<u>S</u> _{um}	<u>D</u> _{iff}
1 · 32	33	31
2 · 16	18	14
<u>4 · 8</u>	<u>12</u>	4

6. $x^2 - 6x - 40$

$(x + 4)(x - 10)$

<u>P</u> _{SD}		
<u>P</u>	<u>S</u>	<u>D</u>
1 · 40	41	39
2 · 20	22	18
<u>4 · 10</u>	14	<u>6</u>
5 · 8	13	3

NOTE: IF YOUR FIRST TERM IS NEGATIVE, ALWAYS FACTOR OUT A NEGATIVE

4. $-7x - 21$
 $-7(x + 3)$
 $-7(x + 3)$

NOTE: LARGER # IN P COLUMN IS ALWAYS THE SAME SIGN AS MIDDLE TERM

S = SAME SIGNS
 D = DIFF SIGNS