**OBJECTIVE:** Students will help each other learn how to factor higher degree polynomials in order to find zeros.

**STANDARD:** A.SSE.2 Use structure to rewrite an expression/equation. A.APR.3 Identify zeros when suitable factorization available.

#### STUDENT LEARNING QUESTIONS:

a) Did students support one another in learning? Did they encourage each other's involvement and take some responsibility for it?

b) What student comments show relevant and meaningful discussions about the text/topic? What comments show this?

- 1. FACTORING GROUPS MEET (~15-20 minutes)
  - Distribute KEYS to practice problems
  - Distribute FACTORING POSTER handout
  - Check homework, discuss solutions
  - Discuss examples
  - Plan/Create POSTER
- 2. Aligned Instructional Strategy "Gallery Walk"
  - INDIVIDUALLY Visit each poster just to read Place BEFORE DOT (r/y/g)
  - In their Class Teams, re-visit each poster
  - Add notes to GRAPHIC ORGANIZER, discuss method
  - Can you solve the "Challenge Problem"?
- 3. Gallery Walk Debrief
  - Return to seats. POSTERS rotate, experts share
  - Expert reviews "Challenge Problem"
- 4. Class Teams Solve by Factoring Challenge
  - Each person does problem set but WITH collaboration/help
  - Distribute KEYS check work, discuss
  - INDIVIDUALLY Re-visit each poster Place AFTER DOT
- 5. Individual Factoring Challenge
  - Using GRAPHIC ORGANIZER
  - No collaboration or help
- 6. UNIT 3 PRACTICE TEST
- 7. HW 3-5 due Wednesday

### FACTORING POSTER

You will create a poster about your factoring method.

Your poster should include:

1. Big TITLE at top, which is your factoring method

- 2. Important information about your method be EFFICIENT with words!
  - How will I know when to use it?
  - How do I carry out the method?
  - Is there anything special I should know about zeros?
  - A GOOD example not too easy, not too hard
- 3. You should have a "CHALLENGE PROBLEM" for viewers to do.
  - This should not be a trivial example
  - Include a common factor which must be factored out first
- 4. Leave a space at bottom for "BEFORE/AFTER"
- 5. Make it as visually appealing as possible in the time given.

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| Quadratic | Shaped |
|-----------|--------|
|-----------|--------|



Sum, Difference of Cubes

## GALLERY WALK - CHALLENGE PROBLEMS

Sum/Difference of Cubes

# Quadratic Shaped

# Grouping