III. Factoring “ax^2 + bx + c” (p.356):

1. \((mx + p)(nx + q) = ax^2 + bx + c\)

   requires four numbers “m, n, p” & “q” such that...
   
   \[pq = c, \ mn = a \ \text{and} \ \mq + pn = b\]
   
   \text{i.e., find factors of “a & c” where O+I equals “b”}

2. Examples (p.361): Exercises #48,52,54,72

HW: p.361 / Exercises #45-59(odd),69,71,73
I. Difference/Sum of Two Squares

1. \( x^2 - y^2 = (x + y)(x - y) \)
2. \( x^2 + y^2 \) is “prime” \((i.e., \text{can’t be factored})\)
3. Examples (p.371): Exercises #4,26

HW: pp.371-372 / Exercises#1-9(odd),13,23,25,27
Read  pp.364-370 (section 5.5)