

I. Difference/Sum of Two Squares

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

II. Difference/Sum of Two Cubes

1. $x^3 \pm y^3 = (x \pm y)(x^2 \mp xy + y^2)$
2. Examples (p.372): Exercises #76,78,82,92?

HW: pp.371-372 / Exercises#1-9(odd),13,23,25,29,
35-41(odd),49,75-81(odd),85

Read pp.364-370 (section 5.5)

I. Factoring Summary (pp.374-375):

1. Greatest Common Factor
2. 2 terms \rightarrow difference/sum of squares/cubes
3. 3 terms $\rightarrow ax^{2n} + bx^n + c$ (FOIL, substitution)
4. 4 (or more) terms \rightarrow group factoring

II. Examples (pp.378-379): Exercises #4,6,14

HW: pp.378-379 / Exercises #1,3,5,13

Read pp.381-389 (section 5.7)