

I. Difference/Sum of 2 Squares (p.410):

A. $a^2 - b^2 = (a + b)(a - b)$

B. $a^2 + b^2 = \text{PRIME}$ (*i.e.*, cannot be factored*)

C. Examples (p.414): Problems #**36,38**;
and Problems #30,34,44,46,48

* with Real Numbers; may be factored using Complex Numbers (sections 9.4-9.5)

II. Difference/Sum of 2 Cubes (p.411):

A. $a^3 - b^3 = (a - b)(a^2 + ab + b^2)$

B. $a^3 + b^3 = (a + b)(a^2 - ab + b^2)$

C. Examples (p.414): Problems #**54,62**;
and Problems #52,56,58,66

III. More Examples (p.414): Problems #64,80,84,92

HW: p.414 / Problems #1-17(every other odd),23,
29-39(odd),45,47,55,61,
63,69,79,81,83,89,91

Read pp.417-419 (section 6.5)