I. $P(x) = a_n x^n + a_{n-1} x^{n-1} + \ldots + a_2 x^2 + a_1 x + a_0$

1. n = degree of $P(x)$ highest-ordered exponent
2. $P(x) = 0$ may contain repeated roots, the number of times a solution value occurs is called its "multiplicity"

   e.g., solve $x^2 + 2x + 1 = 0$

   $(x + 1)(x + 1) = 0$

   $\therefore\ x = -1$ w/multiplicity 2
3. $P(x)$ has exactly "n" zeros

   i.e., $P(x) = 0$ has "n" roots (solutions)

   when the multiplicity of repeated roots are included
4. Complex roots occur as conjugate pairs...

   if "$x = a + bi$" is a root, then "$x = a - bi$" is a root

II. Examples (p.220): Exercises #6,4,8,18

III. If P(x) has zeros $r_1, r_2, r_3, \ldots r_n$, then P($x$) can be expressed in its completely "factored" form as:

$$P(x) = a(x - r_1)(x - r_2)(x - r_3)\ldots(x - r_n)$$

IV. Examples (p.220): Exercises #20,22,28

HW: p.220 / Exercises #1-11(odd),15,19-35(every other odd)