Unit 2 Day 1

① +− Polynomials

- only combine LIKE terms
  - ↓
  - same var.
  - same exp

② Name/classify by #terms

monomial (1)
binomial (2)
trinomial (3)
polynomial (many)

classify by degree

- Degree of poly. is same as the degree of
- highest exp. term

x^1 - linear
x^2 - quadratic
x^3 - cubic
x^4 - quartic
x^5 - quintic

ex. $6x^2y^3$ $-7xy^5z^2$
quintic degree 8

③ Special Products

$(a+b)(a+b) = a^2+2ab+b^2$

$(2x+3)^2 \neq 4x^2+9$

$= 4x^2+12x+9$

$(a-b)(a-b) = a^2-2ab+b^2$

$(3x-1)^2 \neq 9x^2+1$

$= 9x^2-6x+1$

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

$(3x+2y)(3x-2y) = 9x^2-4y^2$