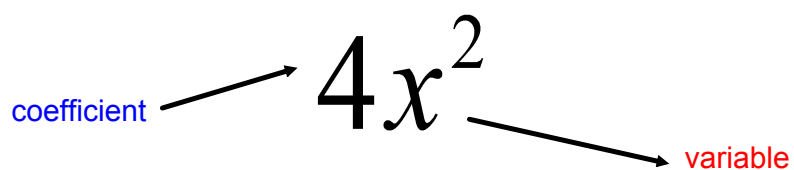


## 1.5 Collecting Like Terms (chapter 3.6 in text)

**Learning Goal:** you will be able to simplify an expression by collecting "like terms", and will be able to apply this skill in order to solve simple problems involving the perimeter of simple shapes.

**Unit 1, Part 2    1.5 Collecting Like Terms**Algebra

The expression  $4x^2$  is called a term. A term consists of two parts, the coefficient and the variable.



**A polynomial is classified by the number of terms it has.**

<b>type of polynomial</b>	<b>number of terms</b>	<b>examples</b>
monomial	1	$x, 3y, -4a^2, 5$
binomial	2	$2x-3, ab+2a, 4x^2-x$
trinomial	3	$2x^2+3x-1, a+2b-c$

Polynomials can be simplified by adding or subtracting like terms. This is called collecting like terms. **Like terms have identical variables.**

Ex. Identify the like terms in each group.

a)  $2x$      $2$      $3x$      $3xy$      $5x$

b)  $4a^2$      $-a^2$      $2a$      $a^2b$      $a^3$

c)  $2u^2$      $-4uv$      $6$      $\frac{1}{2}v$      $-5$      $3u^2$

Ex. Simplify

a)  $6x + 4 + 8x + 3$

When collecting like terms

- group or identify the like terms
- add or subtract like terms only
- apply integer rules to the coefficients of like terms
- do not change the variable parts

b)  $2b - b + 7 - 8$

c)  $3r^2 + 2 - 6r + 9r - 3r^2$

d)  $0.5m - 4.5n + 0.7m + 4.5n - 1.5$

HW pg 151 #1, 2, 4, 7, 8, 9, 12, 15