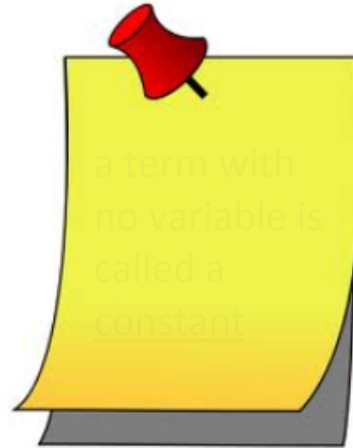
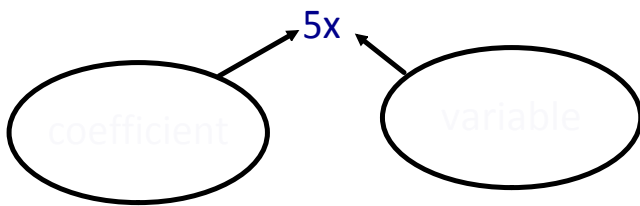


1.8 Communicate with Algebra

1. Vocabulary

a) Term: an expression formed by the **product** of a number and/or variable.

ex: $5x$, $7x^2y^3z$, 8 , x



b) Polynomial: an algebraic expression consisting of one or more terms. Terms are separated by additions or subtractions.

ex: $5x^2$
 $2x - 1$
 $4x^2 + 7x + 8$

1 term: $5x^2$

2 terms: $2x - 1$

3 terms: $4x^2 + 7x + 8$



c) Degree of a term: sum of the exponents on the variables in a term.

ex: a) $3m^4n^5$ degree =
 b) xy^3z^2 degree =

d) Degree of a polynomial: degree of the highest degree term.

ex: $2a^5b^3 - a^{10}b^2 + 3a^7c^6$ degree =

Ex. 1

Expression	# of terms	Name	Degree	Constant	Coefficient(s)
$3x - 1$					
$x^2 - 2x + 8$					
$\frac{x}{3}$					
$5x^2y + xy^4$					

Ex 2:

A theatre charges \$80 for orchestra seats, \$50 for dress circle seats, and \$25 for balcony seats.

a) Write an expression that describes the total earnings from seat sales.

b) Identify the variable and the coefficient of each term and explain what they mean.

Term	Variable and what it represents	Coefficient and what it represents

c) How much will the theatre earn if it sells 100 orchestra seats, 200 dress circle seats, and 150 balcony seats?

Practice: page 134

C1, C3c, 1def, 3ace, 5ace, 6ace, 7, 8, 9d, 11,13,[18]

Note: a variable is just the letter/symbol - it should have exponent 1 (the book is wrong!)

1. Algebra is a tool for expressing the world.
2. Algebra is a tool for solving problems
3. Algebra helps us think abstractly.