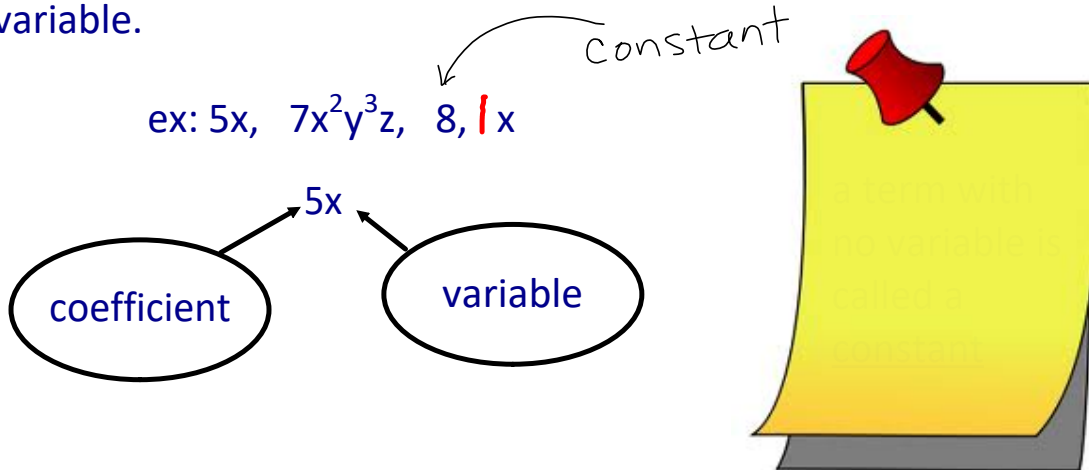


1.8 Communicate with Algebra

★ STUDY FOR THE TEST

1. Vocabulary

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



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

ex: $5x^2$ 1 term: monomial
 $2x - 1$ 2 terms: binomial
 $4x^2 + 7x + 8$ 3 terms: trinomial



$$\begin{aligned} 3x^2 + 2x^2 \\ = 5x^2 \end{aligned} \therefore \text{monomial}$$

$$3x^2 + 2x \therefore \text{binomial}$$

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

↳ Add up all the exponents (variables only)

ex: a) $3m^4n^5$ $4+5$ degree = 9
 b) xy^3z^2 $1+3+2$ degree = 6

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

ex: $2a^5b^3 - a^{10}b^2 + 3a^7c^6$ degree = 13

8 12 13

Ex. 1

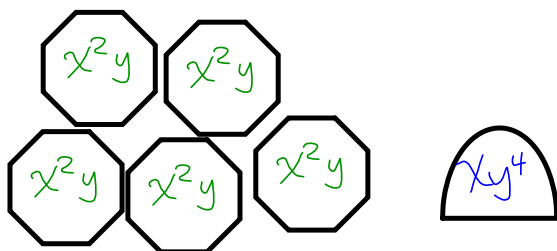
Expression	# of terms	Name	Degree	Constant	Coefficient(s)
$3x - 1$	2	binomial	1	-1	3
$x^2 - 2x + 8$	3	trinomial	2	8	1, -2
$\frac{1}{3}x$	1	monomial	1	none	$\frac{1}{3}$
$5x^2y + xy^4$	2	binomial	5	none	5, 1

$\frac{8x^0}{8}$

$\frac{x}{3} \quad \frac{1}{3}$

$3x \rightarrow 3$
 $\frac{1}{3}x \rightarrow \frac{1}{3}x$

$\frac{3}{x} \rightarrow \frac{3}{1} \rightarrow 3$



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.

$$\frac{5^{10}}{5^{10}} = ?$$

Show using
2 different
methods