$\qquad$
$\qquad$ Hour $\qquad$

## Vocabulary:

A $\qquad$ is a $\qquad$ that represents one or more unknown numbers.

An $\qquad$ uses numbers, operations and variables.

An $\qquad$ is a mathematical sentence that uses an $\qquad$ sign.

Example 1: Write an algebraic expression for each phrase.
a. the sum of $n$ and 8
b. t minus 15
c. six less than b
d. the quotient of 4.2 and $c$
e. two less than three times $x$
f. four times the sum of $y$ and 7
g. ten more than twice a number
h. three times a number minus six


Example 2: Define a variable and write an equation to show the total income from selling tickets to a school play for $\$ 5$ each.

Example 3: Define variables and write an equation to model the data in the table.

| Gallons Used <br> (G) | 4 | 6 | 8 | 10 |
| :---: | :---: | :---: | :---: | :---: |
| Miles Traveled <br> (M) | 80 | 120 | 160 | 200 |

## More Vocabulary:

A $\qquad$ is a number, a variable, or the product of a number and a variable.

A $\qquad$ is a term that has no variable.

A $\qquad$ is the number you multiply a variable term by.
$\qquad$ contain the same variables to the same powers.

Example 4: Identify the terms, the coefficients, and the constant in the expression.
a. $5 x^{2}+2 x-3$
terms: $\qquad$ coefficients: $\qquad$ constant: $\qquad$
b. $-2 x^{3}-x^{2}$
terms: $\qquad$ coefficients: $\qquad$ constant: $\qquad$

Example 5: Simplify each expression when possible.
a. $-2 w^{2}+w^{2}$
b. $3 x-2 x$
c. $8 z+2 y$
d. $-7 q^{2}+3 q$
e. $7 x-2(3 x+4)$
f. $2 a b+3 a^{2}-a^{2}-4 a b$
g. $12 x-(15+8 x)+3(x+5)$

Homework: Pages 6-8\#1-23 odd, 48-51 all AND
Pages 50 - 53 \# 15 - 19 odd, 31 - 47 odd, 70, 75, 80, 81, 83, 84, 97, 98

