| Name |      |
|------|------|
| Date | Hour |

## **Vocabulary:**

| A   | is atł                       | nat represents one or more unknown numbers. |  |  |  |  |
|---|------------------------------|---|--|--|--|--|
| Ar  | າι                           | uses numbers, operations and variables.     |  |  |  |  |
| Ar  | n is a mathematica           | al sentence that uses an sign.              |  |  |  |  |
| <b>Example 1:</b> Write an <i>algebraic expression</i> 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<br>a variable.   | is a number, a variable, or the product of a number and |                            |                      |  |  |  |
|--|---|----------------------------|----------------------|--|--|--|
| Α  | is a term that has no variable.                         |                            |                      |  |  |  |
| Α  | is the number you multiply a variable term by.          |                            |                      |  |  |  |
|  | contain the same variables to the same powers.          |                            |                      |  |  |  |
| <b>Example 4</b> : Identify the terms, the coefficients, and the constant in the expression. |   |                            |                      |  |  |  |
| a. $5x^2 + 2x - 3$   | terms:  | coefficients:              | constant:            |  |  |  |
| b. $-2x^3 - x^2$   | terms:  | coefficients:              | constant:            |  |  |  |
| <b>Example 5:</b> Simplify each expression when possible.                                    |   |                            |                      |  |  |  |
| a. $-2w^2 + w^2$   |   | b. 3x – 2x                 |                      |  |  |  |
| c. 8z + 2y   |   | d7q <sup>2</sup> + 3q      |                      |  |  |  |
| e. $7x - 2(3x + 4)$  |   | f. 2ab + 3a <sup>2</sup> – | a <sup>2</sup> – 4ab |  |  |  |
| g. 12x – (15 + 8x)   | ) + 3(x + 5)  |                            |                      |  |  |  |

<u>Homework:</u> 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