Name: Answer Key Date: _____ Period: _____

Homework for Lesson 11-1

For problems 1-4, write an algebraic expression to represent the phrase.

1. The quotient of 13 and z $13 \div z$	2. a take away 16 $a - 16$
3. 8 less than w $w - 8$	4. 3 groups of w $3w$

For problems 5-8, write a phrase to represent the algebraic expression.

5. $\frac{h}{12}$ h divided by 12	6. $11x$ Product of 11 and x
7. $2 + g$ 2 added to g.	8. $6 - y$ Difference of 6 and y

For problems 9-10, read the scenario then answer the questions.

9. Sarah and Noah work at Read On Bookstore and get paid the same hourly wage. The table shows their work schedule for last week.

Read On Bookstore Work Schedule (hours)			
	Monday	**Tuesday**	**Wednesday**
Sarah	5	3	
Noah			8

a) Write an expression that represents Sarah's total pay last week.
Represent her hourly wage with w.

$5w + 3w$

b) Write an expression that represents Noah's total pay last week. Represent his hourly wage with w. $8w$

c) Are the expressions equivalent? Did Sarah and Noah earn the same amount last week? Use models to justify your answer. yes, the expressions are equivalent because both worked 8 hours.

10. Mia buys 3 gallons of gas that costs *d* dollars per gallon. Bob buys *g* gallons of gas that costs $3 per gallon.

a) Write an expression for the amount Mia pays for gas $3 \cdot d$

b) Write an expression for the amount Bob pays for gas $g \cdot 3$

c) What do the number and the variable represent in each expression?

3 gallons, d dollars

g gallons, 3 dollars

Spiral Review

1) Use Order of Operations to solve.

$9 + 6(2^2 + 4)$

$4+4$

$9 + 6 \cdot 8$

$9 + 48 = 57$

2) Circle the following ratios that are equivalent to 2:5

a. 1:2.5

b. 10:25

c. 12:30

d. 6:20

e. 3:6

3) Khalil has 3/4 acres of land that he is selling to 3 people. How much land will each person buy if the land is divided up equally?

$\frac{3}{4} \div \frac{3}{1}$

$\frac{3}{4} \times \frac{1}{3} = \frac{3}{12} = \frac{1}{4}$ land

4) Abby completes 20% of her math problems on her test. If there are 25 math problems on the test, *how many problems does Abby have left?*

$\frac{x}{25} \overset{\times 4}{=} \frac{20}{100}$ $x = 5$

$25 - 5$

20 problems left

5) Write an expression for the product of 5 and *m* added to 9:

$(5 \cdot m) + 9$

6) At a hospital, the ratio of doctors to patients is 3:5. If there are 75 patients at the hospital, how many doctors are there?

$\frac{3}{5} = \frac{x}{75}$

$\frac{5x}{5} = \frac{225}{5}$ $x = 45$ Doctors

Name: _____ Date: _____ Period: _____

Homework for Lesson 11-2

For problems 1-4, evaluate the following expression when m = 5

1. $4(m - 2 + 10)$

$4 \cdot (5 - 2 + 10)$

$4 \cdot 13 = 52$

2. $\frac{25}{m} + m^2$

$\frac{25}{5} + 5^2$

$5 + 25 = 30$

3. $m \cdot 4 \div 2 - 8$

$5 \cdot 4 \div 2 - 8$

$20 \div 2 - 8$

$10 - 8 = 2$

4. $5(8 + 4 \cdot m)$

$5 \cdot (8 + 4 \cdot 5)$

$5 \cdot (8 + 20)$

$5 \cdot 28 = 140$

5. The table on the right shows the prices for attending a women's soccer game as well as parking. Use the table to answer the questions below.

Women's Soccer Game Prices	
Student tickets	$6
Nonstudent tickets	$12
Parking	$5

a. Write an expression to represent the total price for student tickets and one car of parking:

$6p + 5$

b. Use your expression to determine how much the total cost would be for 4 students including parking?

$6 \cdot 4 + 5$

$24 + 5 = \$29$

c. Use your expression to determine how much the total cost would be for 8 students including parking?

$6 \cdot 8 + 5$

$48 + 5 = \$53$

d. Write an expression to represent the total price for non-student tickets without parking.

$12p + 5$

Spiral Review

1) $320 \div \left(\frac{(11-9)^3}{2}\right)$

$320 \div \frac{8}{2}$

$320 \div 4$

80

2) List three equivalent ratios to 5:6

10:12 15:18

25:30

3) The ratio of Comedies to Thrillers on Netflix is 3:4
Fill in the ratio table below with the correct values:

Comedies	Thrillers
3	4
6	8
9	12

4) Rosa can run 4 miles in 56 minutes. How many miles does Rosa run if she runs for 42 minutes? Use a proportion to solve.

$\frac{4}{56}$ $\frac{56 \text{ min}}{4 \text{ mi}} = \frac{14 \text{ min}}{1 \text{ mi}}$

3 miles

5) Nicole walked 12 miles on Tuesday, 10.5 miles on Wednesday, and 22 miles on Thursday. How far did Nicole walk all three days combined?

$$\begin{array}{r} 12.0 \\ +\ 10.5 \\ \hline 22.0 \\ \hline 44.5 \text{ miles} \end{array}$$

6) Represent this expression using an exponent:

7 x 7 x 7 x 7 x 7 x 7 x 7 7^7

What is the value of this expression?

823,543