Kim/Groot/VanderHeide Name_____

Using Equations to Solve Word Problems

Chapter 7

Topic	Description, Classwork & Homework
Writing Equations Section 7.7 Pages 362-363	List as many mathematical words possible for +, −, x, ÷ Changing sentences into equations ("is" often means "=") Word Problem Format: **1) Givens: 2) Find: 3) Let....** **Classwork: Pg 363 -** 1, 2, 5, 7, 12, 19, 20, 22, 24, 25a **Homework: Pg 363 -** 3, 4, 6, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 21, 23, 25b, 26a, b
Solving Problems using Equations Section 7.8 Pages 364-367 **Pythagorean Theorem** P453	Word Problem Format: **1) Givens: 2) Find: 3) Let.... 4) Solution 5) Conclusion** Using diagrams(length&width) and charts(value) Working backwards **Pythagorean Theorem: $a^2 + b^2 = c^2$** **Classwork: Pg 366 -** 1, 4, 8, 11, 13, 15, 17, 19, 20, 23, 28, 29, 31, 34, 37, 38 **Homework: Pg 366 -** 2, 3, 5, 6, 7, 9, 10, 12, 14, 16, 18, 21, 22, 24, 25, 26, 27, 30, 32, 33, 35, 36, 39 **Classwork: Pg 453 -** 1, 2, 6, 7 **Homework: Pg 453 -** 3, 4, 5, 8
Working with formulas Section 7.9 Pages 368-370	What is a formula? Common Formulas (**Area, Volume**) Rewriting formulas to isolate one variable (get **x** by itself) **Classwork: Pg 369 -** 1, 2 , 3, 4, 9, 10, 12 **Homework: Pg 369 -** 5, 6, 7, 8, 11, 13, 14
Developing Formulas Section 7.10 Pages 371-372	Dependent & Independent Variables Writing Formulas **Activity: Pg 371 Study the Information & Answer Questions** **Classwork: Pg 372 -** 1, 2, 3, 4 **Homework: Pg 372 -** 5, 6, 7, 8
Uniform Motion Section 7.11 Pages 376-377	Distance Formula (distance triangle) **D = ST** Solving for **Speed** and **Time** Using **Distance Charts** to Solve Word problems **Activity: Pg 376 Study Information & Inquire 1-3** **Classwork: Pg 377 -** 1, 3, 5, 7, 9, 12, 17, 19, 21, 23, 24, 26 **Homework: Pg 377 -** 2, 4, 6, 8, 10, 13, 14,15, 18, 20, 22, 25, 27, 28; **handout sheet.**
Rate of Work Problems (on this sheet)	How long does it take two people to do a job together? **Classwork:** 1, 3, 5, 9 **Homework:** 2, 4, 6, 7, 8

Review	**P384 -85 #'s 60 – 75 Tentative Test Date: Dec. 18/19**
Chapter Check	**P386 #'s 25 -34**

Rate of Work Problems

Practice

Write 2 fractions for each question.

1. Ahmed takes 2 h to mow his lawn. His brother, Sami, takes 4 h. What fraction of the lawn does each mow in 1 h?

2. Athena takes 6 h to paint an apartment. Helena takes 8 h to do the same job. What fraction of the apartment do they each paint in 1 h?

Problems and Applications

Solve. Round answers to the nearest tenth, where necessary.

3. Julio can fill a water tank in 4 min using a large hose. He takes 6 min using a smaller hose. How long will he take if he uses both hoses?

4. Andrea can deliver 500 handbills in 2 h. Althea can deliver the same number in 3 h. How long will they take to deliver 500 handbills if they work together?

5. Murray can tile a floor in one hour. His partner can do the same job in half the time. How long will it take them to tile the floor if they work together?

6. Mario can take inventory at the store in 30 min. His partner, Carmen, can take inventory in 20 min. If they work together, how long will the inventory take?

7. Ken and Milan are office cleaners. Ken earns $10/h and takes 8 h to clean an office. Milan earns $8/h and takes 10 h to clean it.
a) How long will it take Ken and Milan to clean the office together?
b) What is the cost of cleaning the office using only Ken? only Milan? Ken and Milan together?

8. Uri, Max, and Boris work for a company that installs carpet tiles in offices. Uri can install 2000 tiles in 10 h. It takes Max 12 h to do the same job. Boris installs 2000 tiles in 15 h. How long would it take them to install 2000 tiles if they work together?

9. Mary takes 3 h to complete a task. Mary and Jim together take 2 h to complete the same task. How long will it take Jim to complete the task working alone?

10. Dan and Brad are brothers who attend the same school. Brad can walk to school in 15 min. Dan takes 20 min.
a) How long will it take them to walk to school together?
b) What makes this problem different from the others in this section?

11. Write a rate of work problem. Have a classmate solve your problem.

LOGIC POWER

Draw the grid and place 3 pennies, a nickel, and a dime on it as shown. By sliding one coin at a time into a neighbouring empty square, make the nickel and the dime change places. You can move horizontally or diagonally. Make the switch in as few moves as possible.