

# Algebra I

## 1-5

### Use a Problem Solving Plan

Read pages 28 - 30.

Find the following formulas and copy them into your notes.

Temperature -  $C = \frac{5}{9}(F-32)$

Simple Interest -  $I = Prt$

Distance Traveled -  $d = rt$

Profit -  $P = I - E = \text{sold} - \text{bought}$

$\begin{matrix} \text{Interest} \\ \text{Principal} \\ \text{(starting value)} \\ r - \text{rate} \\ t - \text{time} \end{matrix}$

$\begin{matrix} \text{Expenses} \\ \text{Revenue} \end{matrix}$

#### Examples from text: pg. 31

Identify what you know and what you need to find out.  
You DO NOT need to solve the problem.

- 3) **CRAFT SHOW** You make 35 dog collars and anticipate selling all of them at a craft show. You spend \$85 for materials and hope to make a profit of \$90. How much should you charge for each collar?

Know - 35 collars  
\$85 - expenses  
\$90 - profit

Need - price of each collar.

State the formula that is needed to solve the problem.  
You DO NOT need to solve the problem.

- 8) The temperature is 68°F. What is the temperature in degrees Celsius?

$$C = \frac{5}{9}(F-32)$$

Solve. Explain your reasoning or plan for solving. Draw a diagram if required.  
(You may choose to work with decimals if the fractions are confusing you.)

- 18) **PIZZA** Thick crust pizza requires about 0.15 oz of dough per square inch of surface area. You have two rectangular pans, one that is 16 inches long and 14 inches wide, and one that is 15.5 inches long and 10 inches wide. How much more dough do you need to make a thick crust pizza in the larger pan than in the smaller one?

$16'' \times 14'' = 224 \text{ in}^2$

$15.5'' \times 10'' = 155 \text{ in}^2$

$\frac{224 \text{ in}^2 - 155 \text{ in}^2}{69 \text{ in}^2}$

$69 \text{ in}^2 \times \frac{0.15 \text{ oz}}{\text{in}^2} = 103.5 \text{ oz}$

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Assignment:

Pg. 31 - 33

4-7 all

9-12 all

15, 17, 19

24, 25

You may use a calculator for this assignment.

Extra Credit!

Extra credit in notebooks: 13

Extra credit Wiki: 20 and 23