

**SOME ADDITIONAL HOMEWORK POLICY:**

1. When turning in homework problems, you only need to turn in the designated problems. Different assignments should be put on different sheets of paper; you should never put projects and homework together on the same sheet.
2. If your homework problem or project requires multiple pages, those pages should be stapled together. Otherwise you will be penalized. Also, your name should be on each sheet.
3. If graphs are part of an assignment, they must be submitted on graph paper with axes labeled and scales clearly indicated. Accompanying work may also be done on the graph paper, as long as it can be read easily.
4. For “word problems” and Projects, you should follow the guidelines below in writing up your solution papers.
  - a. All variables used in the problem should be identified in the problem. For example, “let  $x$  be the amount of solution measured in grams.”
  - b. You should clearly identify the fundamental mathematical model, e.g. equation, inequality, formula, or table, being used in the problem. You should indicate or explain how the model was derived, or if given in the statement of the problem, you should note that it was given.
  - c. You should describe *in words* the major steps in the strategy that you are using to solve the problem.
  - d. The answer to a word problem should be one or more sentences answering the question asked. For example, “we need to use 30 ml of the 20% solution and 50 ml of the 60% solution.”
  - e. Denominate numbers are numbers with physical units. If the answer includes denominate numbers, then those units must be included with your numerical answer. For example, “the length is 72 millimeters.”

Assignment 1

A. Solve each of the following equations:

1.  $2x - 6 = 14$

2.  $10x - 5 = 3x + 23$

3.  $8.1x + 6 = 3.2x - 16.4$

4.  $4(2x - 1) - (3x + 2) = 8$

5.  $\frac{2(x - 2)}{3} + 5x = 10$

6. The temperature in degrees Fahrenheit is given by  
 $F = \frac{9}{5}C + 32$ , where C represents the temperature in degrees Celsius. Find the temperature Fahrenheit corresponding to 35°C.

B. Solve each formula for the specified variable. Turn in #10.

1.  $A = Lwh$  for h.

2.  $I = kL(T - t)$  for t.

3.  $A = \frac{hb}{2}$  for b.

4.  $R = \frac{rL}{D^2}$  for L

5.  $F = \frac{9}{5}C + 32$  for C.

6.  $A = \frac{h(B+b)}{2}$  for B.

7.  $mv_2 - mv_1 = Ft$  for  $v_1$ .

8.  $mv_2 - mv_1 = Ft$  for m.

9.  $PV = nRT$  for V.

10.  $M = \frac{P(C+L)}{T}$  for C.

## Assignment 2

Follow the instructions below and save the results. We will use those results in a future class discussion.

1. Measure the length and width of the rectangle below and express your answer in millimeters.



2. Compute the perimeter and area of the rectangle using your measurements from part 1.

## Assignment 3 (Section 4.1) (Page numbers have been corrected.)

- A. In *Algebraic Aerobics 4.1* on p.205, do the following problems:  
1, 2, 3, 4, 5, 6, 8, 9, 10, 11
- B. In the *Exercises* on pp. 237, do the following problems:  
7, 8, 9ab, 11ab, 12a  
Turn in #12a.

## Assignment 4 (originally incorrectly numbered Assignment 5)

- A. In *Algebraic Aerobics 4.2a* on page 210, do problems 1, 2, 4, 5, and 7. This assignment should be review. We will not discuss it in class but you are welcome to see me in my office if you need help on this material.
- B. In *Algebraic Aerobics 4.3* on page 215, do problems 1, 3, 4, and 5. This assignment should be review. We will not discuss it in class but you are welcome to see me in my office if you need help on this material.