Homework for Week 2  
Oct. 1-5, 2007

The textbook exercises listed here should be completed before class begins; students will share solutions to these exercises at the beginning of class. You should be prepared to share a solution to any one of these.

Before Class on **Monday, October 1**, finish reading Section 2.1 and work the following exercises:
Section 2.1, # 23, 31, 33

Before Class on **Tuesday, October 2**, read Section 2.2 and work the following exercises:
Section 2.2, # 7, 9, 19

Before Class on **Wednesday, October 3**, read Section 2.2 and work the following exercises:
Section 2.2, # 21, 23, 41

Before Class on **Thursday, October 4**, read Section 2.3 and work the following exercises:
Section 2.3, # 1, 3, 5

Before Class on **Friday, October 5**, read Section 2.3 and work the following exercises:
Section 2.3, # 31, 33, 35

**Additional Practice Problems**

Practice as many of these problems as you can. You may use your solutions as notes during the quiz on Tuesday, October 9.

Section 2.1, # 27, 35, 37, 39, 41
Section 2.2, # 1, 3, 5, 11, 13, 15, 25, 27, 43, 45
Section 2.3, # 7, 9, 11, 27, 29
Written Homework

Your carefully written solutions to the following questions will be due at the beginning of class on Friday, October 5.

1 The function $f(x)$ graphed at right is piecewise linear.
   (a) Find a formula for the function $f(x)$.
   (b) Evaluate $f(2.1)$.
   (c) Evaluate $f(4.5)$.

2 Solve each system of equations using the elimination method. Show all your work.
   (a) $\begin{align*}
   2x + y &= 8 \\
   3x - y &= 12
   \end{align*}$
   (b) $\begin{align*}
   2x - y &= 8 \\
   4x - 2y &= 11
   \end{align*}$
   (c) $\begin{align*}
   2x + y + z &= 7 \\
   x - y - z &= -4 \\
   x + y + 2z &= 9
   \end{align*}$

3 Use an augmented matrix to solve each system of equations. Do the row-reduction for part (a) by hand, showing all your work. Use a calculator to perform the row-reduction for part (b), and round your answers for part (b) to 2 decimal places.
   (a) $\begin{align*}
   4x + 8y &= 9 \\
   2x - y &= 12
   \end{align*}$
   (b) $\begin{align*}
   1.1x - 2.3y + z &= 8 \\
   x + 2.1z &= 1.5 \\
   1.3y - z &= 4
   \end{align*}$