

# HW 6

## ENED 1090: MODELS I Week 6 Homework

Submit Week 7 during Lab

:  
Xie Ming ( ): Yi Hongrui  
English Name: Horace  
CQU Student ID: 20186103

### INSTRUCTIONS

Complete each question below by typing your answer or copying from the output in MATLAB or Excel.

This assignment is to be completed outside of class. You will submit a digital copy to your TA during the lab session next week.

**!!! To receive points for this assignment, add your name to the filename. For example, if my name is Lin Yali, I will change the filename to**

**Wk06\_ened1090\_homework\_LinYali.doc**

### OBJECTIVES

For this assignment, students will demonstrate

General survey

Understanding of GPP and finding programming errors

Identification of flowchart blocks

### PROBLEM 1

Complete the class survey on Blackboard: <https://canopy.uc.edu>

**meta\_woudenam\_3214: (Meta 18FS-CQU) ENGR. MODELS I (001-002)**

You will log in with your University of Cincinnati M-Number and password.

If you **cannot** access Blackboard, put in **X** in the box:

☐

### PROBLEM 2

Describe the two types of errors that might happen when creating an engineering program.

Typing errors and mathematic errors.

### PROBLEM 3

What are some things that you can do to follow good programming practice

There are 4 rules: use proper variable names, use program header, use good formatting standards, and do the test on your code during development.

### PROBLEM 4

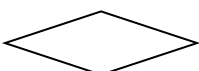
Identify the programming flowchart blocks and describe how to use each.



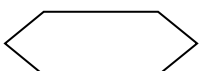
Start / Stop Place it at the beginning or the end of the program.



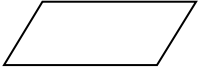
Processor block Give it a function to push the process of the program.



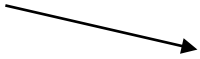
Decision block Give it a true option and a false option to choose.



Repeating block To repeat some part of the program over and over again.



Input / Output block To express the input or output variable.



Flow line Connect different blocks to make the program sequential.

### PROBLEM 5

Use the symbols on [www.draw.io](http://www.draw.io) to construct the flowchart for the following instructions.

*Hershey's Perfectly Chocolate Cake*

Directions:

1. Heat oven to 350 F.
2. Grease and flour two 9-inch round baking pans
3. Stir together sugar, flour, cocoa, baking powder, baking soda, and salt in a large bowl
4. Add eggs, milk, oil, and vanilla.
5. Beat on medium speed of mixer for two minutes.
6. Stir in boiling water.
7. Pour batter into prepared pans.
8. Bake 30 to 35 minutes or until wooden pick inserted in center comes out clean.
9. Cool for 10 minutes
10. Remove from pans.
11. Cool Completely

Export a PNG (or JPG) from **Draw.io** or **PowerPoint** of your flow chart. Include in the space below.

### PROBLEM 6

Use the symbols on [www.draw.io](http://www.draw.io) to construct the flowchart and show the solution to the following problem.

*Algebra: Solve for x*

Export a PNG (or JPG) from **Draw.io** or **PowerPoint** of your flow chart. Include in the space below.

