1) The textbook describes the program development cycle as:

The design step involves:

1. understand the task that the program is to perform by:
   - Interviewing the customer
   - Developing the software requirement

2. Determine the steps that must be taken to perform the task

a) Why are mistakes in the software requirements costly to fix?

b) In English, write an algorithm to exit the building if the fire alarm goes off. Recall that an algorithm is a set of well-defined logical steps that must be taken in order to perform a task.
2) For each of the following write a print statement to generate the following output

- That's all folks
- “Now” means “NOW!”
- Line 1: cat
  Line 2: dog
  Line 3: mouse

Determine which of the following variable names is legal. For the legal names, rewrite them to conform to camelCase and using underscores.

- 4scoreand7years
- fourscoreand7years
- _4scoreand7years
- onemallleapforman

3) Trace the following Python code to determine its output:

```python
a = 10
b = a
a = 20
print "a =", a, "b =", b
```

4) Trace the following Python code to determine its output if you enter your information:

```python
last = raw_input('Enter your last name')
age = input('Enter your age')
first = raw_input('Enter your first name')
print 'The age of', first, last, 'is', age
```

5) Trace the following Python code to determine what value is printed

- print 'the average is', 5 + 7/2
- print 4 + 3 * 6 - 2 / 4