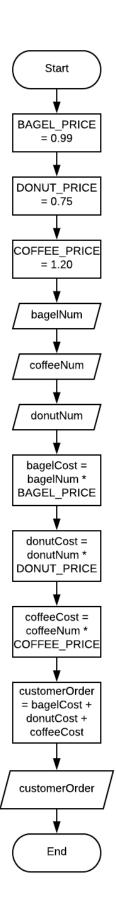
Homework Programming Logic and Design Chapter 1 Part 2 Key For each of the following questions, find the inputs and outputs, write the pseudocode, and desk check the pseudocode. You will create a Raptor file for the flowchart of each as well. This will be submitted in a separate file.

1. A bagel store wants a program to calculate a customer's order. The customers can purchase bagels, donuts, and/or coffee. Bagels are 0.99, donuts are 0.75, and coffee is \$1.20.

| Inputs              | Process    | Outputs       |
|---------------------|------------|---------------|
| BAGEL_PRICE = 0.99  | bagelCost  | CustomerOrder |
| DONUT_PRICE = 0.75  | donutCost  |               |
| COFFEE_PRICE = 1.20 | coffeeCost |               |
| bagelNum            |            |               |
| donutNum            |            |               |
| coffeeNum           |            |               |

#### Pseudo Code:

- 1. Set BAGEL\_COST, DONUT\_COST, COFFEE\_COST
- 2. Enter bagelNum, donutNum, coffeeNum
- 3. Calculate bagelCost by multiplying BAGEL\_COST \* bagelNum
- 4. Calculate donutCost by multiplying DONUT\_COST \* donutNum
- 5. Calculate coffeeCost by multiplying COFFEE\_COST \* coffeeNum
- 6. Calculate customerOrder by adding bagelCost + donutCost + coffeeCost
- 7. Display customerOrder



### Desk Check

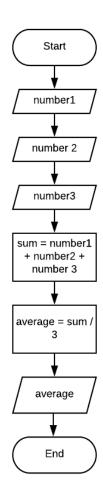
| BAGEL_<br>PRICE | DONUT_<br>PRICE | COFFEE_<br>PRICE | Bagel<br>Num | Donut<br>Num | Coffee<br>Num | Bagel<br>Cost | Donut<br>Cost | Coffee<br>Cost | Customer<br>Order |
|-----------------|-----------------|------------------|--------------|--------------|---------------|---------------|---------------|----------------|-------------------|
| TRICE           | TRICE           | TRICE            | Ivain        | Num          | Italii        | Cost          | Gost          | Gost           | Order             |
| 0.99            | 0.75            | 1.20             | 1            | 2            | 3             | 0.99          | 0.75 *        | 1.20 *         | 0.99 +            |
|                 |                 |                  |              |              |               | * 1 =         | 2 =           | 3 =            | 1.50 +            |
|                 |                 |                  |              |              |               | 0.99          | 1.50          | 3.60           | 3.60 =            |
|                 |                 |                  |              |              |               |               |               |                | 6.09              |
| 0.99            | 0.75            | 1.20             | 3            | 5            | 8             | 0.99          | 0.75 *        | 1.20 *         | 2.97 +            |
|                 |                 |                  |              |              |               | * 3 =         | 5 =           | 8 =            | 3.75 +            |
|                 |                 |                  |              |              |               | 2.97          | 3.75          | 9.60           | 9.60 =            |
|                 |                 |                  |              |              |               |               |               |                | 16.32             |

2. Create a program that accepts three numbers. The program will find and display the average of the numbers.

| Inputs   | Process | Outputs |  |
|----------|---------|---------|--|
| number1  | sum     | average |  |
| number 2 |         |         |  |
| number 3 |         |         |  |

### Pseudo Code:

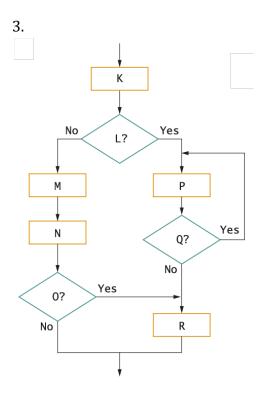
- 1. Input number1
- 2. Input number2
- 3. Input number3
- 4. Calculate sum by adding number1, number2, number3
- 5. Calculate average by dividing the sum by 3
- 6. Display average



# Desk Check

| Number<br>1 | Number<br>2 | Number 3 | Sum         | Average     |
|-------------|-------------|----------|-------------|-------------|
| 5           | 9           | 9        | 5+9+9=23    | 23/3=7.67   |
| 16          | 88          | 9        | 16+88+9=113 | 113/3=37.67 |

For this last problem, correct the flowchart by creating a structured one. You can use a free tool called Lucidchart on the web to create your flowchart.



# Solution:

