**Chapter 2 – Review Questions Hung Le**

**1/**

|  |  |  |
| --- | --- | --- |
| Defining table | | |
| Input | Processing | Output |
| The area of each customer’s lawn in square feet. | Multiply area by 10 cents to compute the fee to mow the lawn one time.  Multiply the fee to mow the lawn one time by 15 weeks to compute the fee to mow the lawn for an entire season. | Total fee need to charge the customer for mowing the lawn for an entire season. |

**Algorithm:**

Step 1: Assign a value to a variale

Set total fee to 0

Step 2: Receive data

Get the area of a customer’s lawn.

Step 3: Perform arithmetic

1. Multiply the area by 10
2. Add the result to total fee
3. Multiply the total fee by 15

**2/**

|  |  |  |
| --- | --- | --- |
| Defining table | | |
| Input | Processing | Output |
| The number of regular hours and overtime hours that the employee worked.  The employee’s regular hourly wage. | Multiply regular hours by regular hourly wage to get total regular wage.  Multiply hourly wage by 1.5 to get overtime wage.  Multiply overtime hours by overtime wage to get total overtime wage.  Add total regular wage and total overtime wage together to get the total wage.  Multiply total wage by 15% to get the tax.  Subtract the tax from total wage to get gross pay | Employee’s after tax pay |

**Algorithm:**

Step 1: Assign a value to a variale

Set after tax pay to 0

Step 2: Receive data

Get the employee’s number regular hours

Get the employee’s number of overtime hours

Get the employee’s regular hourly wage

Step 3: Perform arithmetic

1. Multiply regular hours by regular hourly wage to get total regular wage.
2. Multiply hourly wage by 1.5 to get overtime wage.
3. Multiply overtime hours by overtime wage to get total overtime wage.
4. Add total regular wage and total overtime wage together to get the total wage.
5. Multiply total wage by 15% to get the tax.
6. Subtract the tax from total wage to get gross pay

**3/ Which of the following are control structures?**

1. Input
2. Computation
3. **Sequence**
4. **Selection**
5. **Repetition**
6. **Try, catch, and throw**
7. Storage
8. output