Example 2

You have been asked to write a program that will read from the keyboard the radius of a circle and will output to the monitor the diameter, circumference, and area of the circle.

**Input process out put**

|  |  |  |
| --- | --- | --- |
| * Radius of a circle | * Calculate diameter of a circle by multiplying radius of a circle by 2. * Assign cons variable for Pi. With value of 3.147 * Calculate Area of a circle by multiplying   Pi,radius,radius(pi\*radius\*radius)   * Calculate Circumference by multiplying pi with diameter of a circle | The out put should display   * Diameter of the circle * Area of the circle * Circumference of the circle |

Review question chapter 2.

1. Your company needs a program to compute the amount to charge customers for mowing their lawns for an entire season. An employee will type in the total area of the customer’s lawn in square feet. Your company charges 10 cents per square foot to mow a lawn one time and will mow each lawn once a week for 15 weeks.

**Input Processing Out put**

|  |  |  |
| --- | --- | --- |
| * Price per square feet which is 10 cents * How many times to lawn * Area to be lawn | * Compute area to be loan in square feet * Compute number of times to be lawn and multiply with the area * Multiply with 10 cents * 10c\*15\*area | Amount to charge  For the whole season(15 times) |

2. You have been asked to write a computer program that will output an employee’s after tax pay. Your program will read from the keyboard the number of regular hours and overtime hours that the employee worked and the employee’s regular hourly wage. The employee is paid a bonus of 1.5 times regular pay for each overtime hour worked. Tax is 15% of the employee’s gross pay.

**Input process Out put**

|  |  |  |
| --- | --- | --- |
| * Number of hours worked (regular) * Overtimes worked * Hourly pay | * Calculate Total pay by multiplying pay rate with number of hrs worked. * Calculate bonus by multiplying hourly wage for each OT worked with 1.5 * Calculate Goss pay = total pay+ bonus * Calculate Tax deducted = 1.5\*gross pay * Net pay = Goss pay-tax | Net pay(after tax pay) should be displayed at the Out put. |

3. Which of the following are control structures? (Mark all

that apply.)

a. input

b. computation

c. sequence

d. selection

e. repetition

f. try, catch, and throw

g. storage

h. output

Ans

c. sequence

d. selection

e. repetition

f. try, catch, and throw