Umar Khan

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CECS 100

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Programming Exercises

1. **Top down Tree Diagram:**

Flowchart:

Process

“Entering the data”

Input

“Umar Khan, 22633 Gaycrest Ave, Torrance, CA, 90505, 310-863-7808, Computer Engineering”

Output

“Enter name, address, telephone number, college major”

1

1

­­Output

“Umar Khan, 22633 Gaycrest Ave, Torrance, CA, 90505, 310-863-7808, Computer Engineering”

**Pseudo Code:**

Output “Enter name, address, telephone number, college major”

Input “Umar Khan, 22633 Gaycrest Ave, Torrance, CA, 90505, 310-863-7808, Computer Engineering”

Process “Entering the data”

Output “Umar Khan, 22633 Gaycrest Ave, Torrance, CA, 90505, 310-863-7808, Computer Engineering”

2. **Top down Tree Diagram:**

**Flow Chart:**

Output

“Enter the amount of total sales”

Input

“Entering the amount of sales”

“Entering the profit percentage”

Output

“Amount of Profit”

Process

Amount of sales\*0.23= Profit

**Pseudo Code:**

Output

“Enter the amount of total sales”

Input

“Entering the amount of sales

Input

“Entering the profit percentage”

Process

Amount of sales\*0.23= Profit

Output

“Amount of Profit”

3. **Top down Tree Diagram:**

**Flow Chart:**

“Enter the amount of total land”

“Entering the amount of land”

1

1

Amount of land divided by 43560 feet= Amount of land in acres

Total amount of land in acres

**Pseudo Code:**

Output “Enter the amount of total land”

Input “Entering the amount of land”

Process “Amount of land divided by 43560 feet= Amount of land in acres”

Output “Total amount of land in acres”

4. **Top down Tree Diagram:**

**Flow Chart:**

Multiplying the total with 0.06

Multiply the total with 0.06

Adding all the prices

0.06 or 6%

Enter the tax percentage

Entering the prices of five items

Enter the price of five items

Total amount of purchases

Adding the total and the multiplied amount

**Pseudo Code:**

Output “Enter the price of five items”

Input “Entering the prices of five items”

Output “Enter the tax percentage”

Input “0.06 or 6%”

Process “Adding all the prices”

Process” Multiplying the total with 0.06”

Process “Adding the total and the multiplied amount”

Output “Total amount of purchases”

5. **Top down Tree Diagram:**

**Flow Chart:**

Enter the speed of the car

1

Distance= Speed\*Time

60 miles per hour

1

Distance= 60\*5= 300 miles

Enter the time

5 hours

Enter the time

8 hours

Distance= 60\*8= 480 miles

Enter the time

12 hours

Distance= 60\*12= 720 miles

Distance in 5 hours= 300 miles

Distance in 8 hours= 480 miles

Distance in 12 hours= 720 miles

**Pseudo Code:**

Output “Enter the speed of the car”

Input “60 miles per hour”

Input “Distance= Speed\*Time”

Output “Enter the time”

Input “5 hours”

Process “Distance= 60\*5= 300 miles”

Output “Enter the time”

Input “8 hours”

Process “Distance= 60\*8 =480 miles”

Output “Enter the time”

Input “12 hours”

Process “Distance= 60\*12= 720 miles”

Output “Distance in 5 hours= 300 miles

Distance in 8 hours= 480 miles

Distance in 12 hours= 720 miles”