**Answers for Part1:**

**Question 1: Write an if statement in java that assigns a value of 6.129 to `fInput2`**

**When `fInput1` is less than 12.258**

**>>ANSWER:**

public static void main(String[] args) {

Scanner keyboard = new Scanner(System.in);

float fInput1, fInput2;

System.out.println("Enter a decimal number: ");

fInput1 = keyboard.nextFloat();

if (fInput1 < 12.258) {

fInput2 = 6.129f;

}

}

**Question 2:Write an if-else statement in java that assigns 6.129 to `fInput2` when**

**`fInput1` is less than or equal to 12.258 and assigns 24.516 otherwise**

**>>ANSWER:**

public static void main(String[] args) {

Scanner keyboard = new Scanner(System.in);

float fInput1, fInput2;

System.out.println("Enter a decimal number: ");

fInput1 = keyboard.nextFloat();

if (fInput1 <= 12.258) {

fInput2 = 6.129f;

} else {

fInput2 = 24.516f;

}

}

**Question 3: Write an if-else statement in java to select a commission rate based on a given sales amount  
>>ANSWER:**

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner keyboard = new Scanner(System.in);

double saleAmount;

double commissionRate;

System.out.println("Enter the sale amount: ");

saleAmount = keyboard.nextDouble();

if (saleAmount > 15000) {

commissionRate = 3.59;

} else if (saleAmount >= 10500 && saleAmount <= 15000) {

commissionRate = 2.29;

} else if (saleAmount > 10500) {

commissionRate = 1.19;

} else {

commissionRate = 0;

System.out.println(“Has no Commission”)

}

System.out.println("Commission Rate: " + commissionRate + "%");

}

}

**Question 4: Write a nested if statement in java that displays a specific message under certain conditions:**

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner keyboard = new Scanner(System.in);

int firstInt, secondInt;

System.out.println("Enter the first integer: ");

firstInt = keyboard.nextInt();

System.out.println("Enter the second integer: ");

secondInt = keyboard.nextInt();

// Nested IF statement

if (firstInt < 500 && secondInt <= 600 && secondInt < firstInt) {

System.out.println("firstInt and secondInt are less than 500, and the secondInt is less than firstInt");

}

}

}

**Question 5:Convert if-else-if statement into a switch statement**

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner keyboard = new Scanner(System.in);

int option;

System.out.println("Enter one number in the range 1 to 4 to select the task: ");

option = keyboard.nextInt();

switch (option) {

case 1:

System.out.println("You selected option 1");

break;

case 2:

System.out.println("You selected option 2");

break;

case 3:

case 4:

System.out.println("You selected option 3 or option 4.");

break;

default:

System.out.println("Invalid option. Select again please");

break;

}

}

}