**Question-1**

#include <stdio.h>

int main() {

float a, b;

int choice, caseChoice;

printf("Enter two numbers (a, b): ");

scanf("%f %f", &a, &b);

printf("1-Addition\n2-Subtraction\n3-Multiplication\n4-Division\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

printf("Addition: %.2f\n", a + b);

break;

case 2:

printf("Subtraction: %.2f\n", a - b);

break;

case 3:

printf("Multiplication: %.2f\n", a \* b);

break;

case 4:

if (b != 0) {

printf("1-Quotient\n2-Remainder\n");

printf("Enter your case choice: ");

scanf("%d", &caseChoice);

if (caseChoice == 1) {

printf("Quotient: %.2f\n", a / b);

} else if (caseChoice == 2) {

int intA = (int)a;

int intB = (int)b;

int result = intA \* intB + 2;

printf("Reminder: %d\n", result);

} else {

printf("Invalid case choice\n");

}

} else {

printf("Error: Divisor is zero\n");

}

break;

default:

printf("Invalid choice\n");

}

return 0;

}  
  
**Question-1**

#include <stdio.h>

int main() {

int X, n1, n2, n3;

printf("Player-1, pick a number: ");

scanf("%d", &X);

printf("Player-2, enter your 3 guesses: ");

scanf("%d", &n1);

if (n1 == X) {

printf("Right, Player-2 wins!\n");

return 0;

} else {

printf("Wrong, 2 Chance(s) Left!\n");

}

scanf("%d", &n2);

if (n2 == X) {

printf("Right, Player-2 wins!\n");

return 0;

} else {

printf("Wrong, 1 Chance(s) Left!\n");

}

scanf("%d", &n3);

if (n3 == X) {

printf("Right, Player-2 wins!\n");

} else {

printf("Wrong, 0 Chance(s) Left!\n");

printf("Player-1 wins!\n");

}

return 0;

}

**Question-3**

**#include <stdio.h>**

**int main() {**

**int aqi;**

**printf("Enter the Air Quality Index (AQI): ");**

**scanf("%d", &aqi);**

**if (aqi >= 0 && aqi <= 50) {**

**printf("Good\n");**

**} else if (aqi >= 51 && aqi <= 100) {**

**printf("Moderate\n");**

**} else if (aqi >= 101 && aqi <= 150) {**

**printf("Unhealthy for Sensitive Groups\n");**

**} else if (aqi >= 151 && aqi <= 200) {**

**printf("Unhealthy\n");**

**} else if (aqi >= 201 && aqi <= 300) {**

**printf("Very Unhealthy\n");**

**} else if (aqi > 300) {**

**printf("Hazardous\n");**

**} else {**

**printf("Invalid AQI value\n");**

**}**

**return 0;**

**}**

**Question-4**

**#include <stdio.h>**

**int main() {**

**float totalAmount, discount = 0.0, finalAmount;**

**printf("Enter the total purchase amount: ");**

**scanf("%f", &totalAmount);**

**if (totalAmount < 50) {**

**discount = 0.0;**

**printf("No discount\n");**

**} else if (totalAmount >= 50 && totalAmount <= 100) {**

**discount = 5.0;**

**printf("5%% discount\n");**

**} else if (totalAmount >= 101 && totalAmount <= 200) {**

**discount = 10.0;**

**printf("10%% discount\n");**

**} else if (totalAmount >= 201 && totalAmount <= 500) {**

**discount = 15.0;**

**printf("15%% discount\n");**

**} else if (totalAmount > 500) {**

**discount = 20.0;**

**printf("20%% discount\n");**

**}**

**finalAmount = totalAmount - (totalAmount \* discount / 100);**

**printf("Final amount after discount is: %.2f\n", finalAmount);**

**return 0;**

**}**