Practical 4

1.#include <stdio.h>

int main() {

int number;

printf("Enter an integer: ");

scanf("%d", &number);

if (number % 2 == 0) {

printf("%d is an even number.\n", number);

} else {

printf("%d is an odd number.\n", number);

}

return 0;

}

**Rewrite**

#include <stdio.h>

int main() {

int number;

printf("Enter an integer: ");

scanf("%d", &number);

switch (number % 2) {

case 0:

printf("%d is even.\n", number);

break;

case 1:

case -1:

printf("%d is odd.\n", number);

break;

}

return 0;

}

2.#include <stdio.h>

int main() {

int choice;

float num1, num2;

printf("Menu Driven Calculator\n");

printf("1. Addition\n");

printf("2. Subtraction\n");

printf("3. Multiplication\n");

printf("4. Division\n");

printf("Enter your choice (1-4): ");

scanf("%d", &choice);

printf("Enter two numbers: ");

scanf("%f %f", &num1, &num2);

switch (choice) {

case 1:

printf("Result: %.2f\n", num1 + num2);

break;

case 2:

printf("Result: %.2f\n", num1 - num2);

break;

case 3:

printf("Result: %.2f\n", num1 \* num2);

break;

case 4:

if (num2 != 0) {

printf("Result: %.2f\n", num1 / num2);

} else {

printf("Error: Division by zero is not allowed.\n");

}

break;

default:

printf("Invalid choice!\n");

}

return 0;

}

3.#include <stdio.h>

#define PI 3.14159

int main() {

int choice;

float radius;

printf("Geometry Calculator\n");

printf("1. Calculate the Circumference of a Circle\n");

printf("2. Calculate the Area of a Circle\n");

printf("3. Calculate the Volume of a Sphere\n");

printf("Enter your choice (1-3): ");

scanf("%d", &choice);

printf("Enter the radius: ");

scanf("%f", &radius);

switch (choice) {

case 1: {

float circumference = 2 \* PI \* radius;

printf("The circumference of the circle is: %.2f\n", circumference);

break;

}

case 2: {

float area = PI \* radius \* radius;

printf("The area of the circle is: %.2f\n", area);

break;

}

case 3: {

float volume = (4.0 / 3.0) \* PI \* radius \* radius \* radius;

printf("The volume of the sphere is: %.2f\n", volume);

break;

}

default:

printf("Invalid choice!\n");

}

return 0;

}

4.#include <stdio.h>

int main() {

char letter;

printf("Enter a letter: ");

scanf(" %c", &letter);

switch (letter) {

case 'a':

case 'A':

case 'e':

case 'E':

case 'i':

case 'I':

case 'o':

case 'O':

case 'u':

case 'U':

printf("%c is a vowel.\n", letter);

break;

default:

printf("%c is not a vowel.\n", letter);

break;

}

return 0;

}

5.#include <stdio.h>

int main() {

int month;

printf("Enter the month number (1-12): ");

scanf("%d", &month);

switch (month) {

case 1:

printf("January has 31 days.\n");

break;

case 2:

printf("February has 28 days.\n");

break;

case 3:

printf("March has 31 days.\n");

break;

case 4:

printf("April has 30 days.\n");

break;

case 5:

printf("May has 31 days.\n");

break;

case 6:

printf("June has 30 days.\n");

break;

case 7:

printf("July has 31 days.\n");

break;

case 8:

printf("August has 31 days.\n");

break;

case 9:

printf("September has 30 days.\n");

break;

case 10:

printf("October has 31 days.\n");

break;

case 11:

printf("November has 30 days.\n");

break;

case 12:

printf("December has 31 days.\n");

break;

default:

printf("Invalid month number!\n");

break;

}

return 0;

}