1. Write a program to check if a number is positive, negative, or zero.

#include <stdio.h>

void main() {

float num;

scanf("%f", &num);

if (num > 0)

printf("positive number.\n");

else if (num < 0)

printf("negative number.\n");

else

printf("enter a number.\n");

}

1. Write a program to find the largest among three numbers

#include <stdio.h>

void main() {

float a, b, c;

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

if (a >= b && a >= c)

printf("The first number (%.2f) is the largest.\n", a);

else if (b >= a && b >= c)

printf("The second number (%.2f) is the largest.\n", b);

else

printf("The third number (%.2f) is the largest.\n", c);

}

1. Write a program to check if a year is a leap year.

#include <stdio.h>

void main()

{

int year;

scanf("%d", &year);

if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0))

{

printf("Yes, %d is a leap year!\n", year);

}

else

{

printf("No, %d is not a leap year.\n", year);

}

}

1. Write a program to check whether a character is a vowel or consonant.

#include <stdio.h>

void main() {

char ch;

scanf(" %c", &ch);

if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u') {

printf("You entered a vowel: '%c'\n", ch);

}

else {

printf("You entered a consonant: '%c'\n", ch);

}

}

1. Write a program to assign grades based on marks.

#include <stdio.h>

void main()

{

int marks;

scanf("%d", &marks);

if (marks < 0 || marks > 100) {

printf("Marks should be between 0 and 100.\n");

} else if (marks >= 90) {

printf("Excellent! You got an A grade.\n");

} else if (marks >= 80) {

printf("Great job! You got a B grade.\n");

} else if (marks >= 70) {

printf("Good work! You got a C grade.\n");

} else if (marks >= 60) {

printf("You passed with a D grade.\n");

} else {

printf(" you got an F.\n");

}

}

1. Write a program to check whether a number is divisible by 5 and 11.

#include <stdio.h>

void main()

{

int num;

scanf("%d", &num);

if (num % 5 == 0 && num % 11 == 0) {

printf("%d is divisible by both 5 and 11.\n", num);

} else {

printf("%d is not divisible by both 5 and 11.\n", num);

}

}

1. Write a program to find the absolute value of a number.

#include <stdio.h>

void main()

{

float num;

scanf("%f", &num);

if (num < 0)

printf("The absolute value of %.2f is %.2f\n", num, -num);

else

printf("The absolute value of %.2f is %.2f\n", num, num);

}

Write a menu-driven program to perform +, -, \*, / operations.

1. Write a program to find roots of a quadratic equation.

#include <stdio.h>

void main()

{

float a, b, c, d, root1, root2;

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

d = b \* b - 4 \* a \* c;

if (d > 0) {

root1 = (-b + sqrt(d)) / (2 \* a);

root2 = (-b - sqrt(d)) / (2 \* a);

printf("Roots: %.2f, %.2f\n", root1, root2);

} else if (d == 0) {

root1 = -b / (2 \* a);

printf("Root: %.2f\n", root1);

} else {

printf("Complex roots\n");

}

}

10.Write a program to find the number of digits in a number.

#include <stdio.h>

void main() {

int num, count = 0;

scanf("%d", &num);

num = (num < 0) ? -num : num;

if (num == 0) {

printf(" that number has 1 digit: 0\n");

return 0;

}

while (num > 0) {

count++;

num /= 10;

}

printf("You entered a number with %d digits!\n", count);

}