

1. Compare Two Numbers

```
#include <stdio.h> int

main() {

    int num1, num2;

    printf("Enter two numbers: "); scanf("%d

%d", &num1, &num2); if (num1 == num2)

{

    printf("The numbers are equal.\n");

} else if (num1 > num2) {

    printf("The first number is greater than the second number.\n");

} else {

    printf("The first number is less than the second number.\n");

}

return 0;

}
```

2. Eligibility for Voting

```
#include <stdio.h> int

main() {

    int age;

    printf("Enter your age: "); scanf("%d",

&age);

    if (age >= 18) {

        printf("You are eligible to vote.\n");

    } else {
```

```
        printf("You are not eligible to vote.\n");

    }

    return 0;

}
```

3. Triangle Validity Check

```
#include <stdio.h> int

main() {

    int a, b, c;

    printf("Enter the three sides of the triangle: "); scanf("%d %d %d", &a,

    &b, &c);

    if ((a + b > c) && (a + c > b) && (b + c > a)) { printf("The triangle is

        valid.\n");

    } else {

        printf("The triangle is invalid.\n");

    }

    return 0;

}
```

4. Student Grade Comparison

```
#include <stdio.h> int

main() {

    int marks1, marks2;

    printf("Enter marks of two students: "); scanf("%d %d",

    &marks1, &marks2);

    if (marks1 > marks2) {

        printf("Student 1 scored higher.\n");

    } else if (marks1 < marks2) {
```

```
        printf("Student 2 scored higher.\n");

    } else {

        printf("Both students scored the same marks.\n");

    }

    return 0;

}
```

5. Find the Largest of Three Numbers

```
#include <stdio.h> int

main() {

    int num1, num2, num3; printf("Enter three

    numbers: ");

    scanf("%d %d %d", &num1, &num2, &num3); if (num1

    >= num2 && num1 >= num3) {

        printf("The largest number is %d.\n", num1);

    } else if (num2 >= num1 && num2 >= num3) { printf("The largest

        number is %d.\n", num2);

    } else {

        printf("The largest number is %d.\n", num3);

    }

    return 0;

}
```

6. Leap Year Check

```
#include <stdio.h> int

main() {

    int year;

    printf("Enter a year: ");
```

```
scanf("%d", &year);

if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) { printf("%d is a leap year.\n", year);

} else {

    printf("%d is not a leap year.\n", year);

}

return 0;

}
```

7. Temperature Alert

```
#include <stdio.h> int

main() {

    float temperature;

    printf("Enter the temperature: "); scanf("%f",

    &temperature);

    if (temperature > 40) {

        printf("Alert: Temperature exceeds threshold!\n");

    } else {

        printf("Temperature is within the safe range.\n");

    }

    return 0;

}
```

8. Password Strength Validation

```
#include <stdio.h> int

main() {

    int password_length;

    printf("Enter the length of the password: ");
```

```

scanf("%d", &password_length); if

(password_length >= 8) {

    printf("Password is strong enough.\n");

} else {

    printf("Password is too short.\n");

}

return 0;

}

```

9. Check Divisibility

```

#include <stdio.h> int

main() {

    int num1, num2;

    printf("Enter two numbers: "); scanf("%d

%d", &num1, &num2); if (num1 % num2

== 0) {

        printf("%d is divisible by %d.\n", num1, num2);

    } else {

        printf("%d is not divisible by %d.\n", num1, num2);

    }

    return 0;

}

```

10. Admission Criteria

```

#include <stdio.h> int

main() {

    int age, marks;

    printf("Enter your age and marks: ");

```

```
scanf("%d %d", &age, &marks); if (age >=
18 && marks >= 50) {
    printf("You meet the admission criteria.\n");
} else {
    printf("You do not meet the admission criteria.\n");
}
return 0;
}
```