1. **Write a program to check whether a given number is positive or non-positive.**

#include<stdio.h>

#include<conio.h>

int main()

{

int x;

printf("Enter a Number");

scanf("%d",&x);

if(x>0)

printf("Number is Positive");

else

printf("Number is Non Positive");

return 0;

}

1. **Write a program to check whether a given number is divisible by 5 or not**

#include<stdio.h>

int main()

{

int x;

printf("Enter a Number");

scanf("%d",&x);

if(x%5==0)

printf("This Number is Divisible by 5");

else

printf("This Number is Not Divisible by 5");

return 0;

}

1. **Write a program to check whether a given number is an even number or an odd number**.

#include<stdio.h>

int main()

{

int x;

printf("Enter a Number");

scanf("%d",&x);

if(x%2==0)

printf("Number is Even");

else

printf("Number is Odd");

return 0;

}

1. **Write a program to check whether a given number is an even number or an odd number without using % operator.**

#include<stdio.h>

int main()

{

int x;

printf("Enter a Number:");

scanf("%d",&x);

if((x&1)==1)

printf("Odd Number");

else

printf("Even Number");

return 0;

}

1. **Write a program to check whether a given number is a three-digit number or not.**

#include<stdio.h>

int main()

{

int l,x;

printf("Enter a number:");

scanf("%d",&x);

l=printf("%d",x);

if(l==3)

printf("\nThree digit number");

else

printf("\nThis is Not a three digit number");

return 0;

}

**Second approach**

#include<stdio.h>

int main()

{

int x;

printf("Enter a number: ");

scanf("%d",&x);

if(x>99 && x<1000)

printf("Three digit number");

else

printf("Not a three digit number");

return 0;

}

1. **Write a program to print greater between two numbers. Print one number of both are the same.**

#include<stdio.h>

int main()

{

int a,b;

printf("Enter Two Numbers: ");

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

if(a>b)

printf("%d",a);

else

printf("%d",b);

return 0;

}  
**7. Write a program to check whether roots of a given quadratic equation are real & distinct, real & equal or imaginary roots.**

#include<stdio.h>

int main()

{

int a,b,c,D;

printf("Enter Three Numbers:");

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

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

if(D>0)

printf("Roots are real and distinct");

else if(D==0)

printf("Roots are real and equal");

else

printf("Roots are imaginary");

return 0;

} **8. Write a program to check whether a given year is a leap year or not.**

#include<stdio.h>

int main()

{

int year;

printf("Enter a Year:");

scanf("%d",&year);

if(year%400==0)

printf("Leap Year");

else if(year%4==0)

printf("Leap Year");

else

printf("Non Leap Year");

return 0;

} **9. Write a program to find the greatest among three given numbers. Print number once if the greatest number appears two or three times.**

#include<stdio.h>

int main()

{

int a,b,c;

printf("Enter three Numbers: ");

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

if(a>b&&a>c)

printf("%d",a);

else

if(b>c)

printf("%d",b);

else

printf("%d",c);

return 0;

}  
**10. Write a program which takes the cost price and selling price of a product from the user. Now calculate and print profit or loss percentage.**

#include<stdio.h>

int main()

{

float cp,sp,P\_L;

printf("Enter cost price and selling price:");

scanf("%f %f",&cp,&sp);

P\_L=((sp-cp)/cp)\*100;

if(P\_L>0)

printf("Profit percent is %f",P\_L);

else if(P\_L<0)

printf("Loss percent is %f",P\_L);

else

printf("Profit percent is %f",P\_L);

return 0;

} **11. Write a program to take marks of 5 subjects from the user. Assume marks are given out of 100 and passing marks is 33. Now display whether the candidate passed the examination or failed.**

#include<stdio.h>

int main()

{

int a,b,c,d,e;

printf("Enter the Marks of subject a,b,c,d,e:");

scanf("%d%d%d%d%d",&a,&b,&c,&d,&e);

if(a>=33&&b>=33&&c>=33&&d>=33&&e>=33)

printf("You are Pass");

else

printf("You are Fail");

return 0;

} **12. Write a program to check whether a given alphabet is in uppercase or lowercase.**

#include<stdio.h>

int main()

{

char ch;

printf("Enter an alphabet: ");

scanf("%c",&ch);

if(ch>='A'&&ch<='Z')

printf("Uppercase Alphabet");

else if(ch>='a'&&ch<='z')

printf("Lowercase Alphabet");

else

printf("Invalid character");

return 0;

} **13. Write a program to check whether a given number is divisible by 3 and divisible by 2.**

#include<stdio.h>

int main()

{

int x;

printf("Enter a number: ");

scanf("%d",&x);

if(x%6==0)

printf("This Number is divisible by 3 and divisible by 2");

else

printf("This Number is not divisible by 3 and divisible by 2");

return 0;

} **14. Write a program to check whether a given number is divisible by 7 or divisible by 3.**

#include<stdio.h>

int main()

{

int x;

printf("Enter a number: ");

scanf("%d",&x);

if(x%7==0 || x%3==0)

printf("Number is divisible by 7 or divisible by 3");

else

printf("Number is not divisible by 7 or 3");

return 0;

} **15. Write a program to check whether a given number is positive, negative or zero.**

#include<stdio.h>

int main()

{

int x;

printf("Enter a number: ");

scanf("%d",&x);

if(x>0)

printf("Positive");

else if(x<0)

printf("Negative");

else

printf("Zero");

return 0;

} **16. Write a program to check whether a given character is an alphabet (uppercase), an alphabet (lower case), a digit or a special character.**

#include<stdio.h>

int main()

{

char ch;

printf("Enter a character: ");

scanf("%c",&ch);

if(ch>='a' && ch<='z')

printf("Lowercase alphabet");

else if(ch>='A' && ch<='Z')

printf("Uppercase alphabet");

else if(ch>='0' && ch<='9')

printf("Digit");

else

printf("Special character");

return 0;

} **17. Write a program which takes the length of the sides of a triangle as an input. Display whether the triangle is valid or not.**

#include<stdio.h>

int main()

{

int a,b,c;

printf("Enter three sides of triangle: ");

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

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

printf("Valid triangle");

else

printf("Invalid triangle");

return 0;

} **18. Write a program which takes the month number as an input and display number of days in that month.**

#include<stdio.h>

int main()

{

int x;

printf("Enter month number: ");

scanf("%d",&x);

if(x==1)

printf("January 31 Days");

else if(x==2)

printf("February 28 or 29 Days");

else if(x==3)

printf("March 31 Days");

else if(x==4)

printf("April 30 Days");

else if(x==5)

printf("May 31 Days");

else if(x==6)

printf("June 30 Days");

else if(x==7)

printf("July 31 Days");

else if(x==8)

printf("August 31 Days");

else if(x==9)

printf("September 30 Days");

else if(x==10)

printf("October 31 Days");

else if(x==11)

printf("November 30 Days");

else if(x==12)

printf("December 31 Days");

else

printf("Invalid month number");

return 0;

}