// 1.To check wheather a given number is positive or non-positive.

#include <stdio.h>

int main()

{

int num;

printf("Enter the number.");

scanf("%d",&num);

if(num>0)

printf("%d is positive.",num);

else

printf("%d is non positive.",num);

return 0;

}

// 2.To check wheather a given number is divisible by 5 or not.

#include <stdio.h>

int main()

{

int num;

printf("Enter the number.");

scanf("%d",&num);

if(num%5)

printf("%d is not divisible by 5 ",num);

else

printf("%d is divisible by 5",num);

return 0;

}

// 3.To check wheather a given number is even or odd.

#include <stdio.h>

int main()

{

int num;

printf("Enter the number.");

scanf("%d",&num);

if(num%2)

printf("%d is odd",num);

else

printf("%d is even",num);

return 0;

}

// 4.To check wheather a given number is even or odd without using % operator.

#include <stdio.h>

int main()

{

int num;

printf("Enter the number.");

scanf("%d",&num);

if(num&1)

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

else

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

return 0;

}

// 5.To check wheather a given number is three digit number or not.

#include <stdio.h>

int main()

{

int num;

printf("Enter the number.");

scanf("%d",&num);

num<1000?printf("%d is three digit number.",num):printf("%d is not three digit number.",num);

return 0;

}

// 6.To print greater between two numbers.

#include <stdio.h>

int main()

{

int n1,n2;

printf("Enter two number.\n");

scanf("%d%d",&n1,&n2);

(n1>=n2)?printf("%d is greater.",n1):printf("%d is greater.",n2);

return 0;

}

// 7.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 the value of a,b,c.\n");

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

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

if(D>0||D<0)

{

if(D>0)

printf("%d is real and distinct root.",D);

else

printf("%d is imaginary root.",D);

}

if(D==0)

printf("%d is real and equal root.",D);

return 0;

}

// 8. To check wheather a given year is a leap year or not.

#include <stdio.h>

int main()

{

int y;

printf("Enter the leap year.\n");

scanf("%d",&y);

if(0==y%4)

{

if(0==y%100)

{

if(0==y%400)

printf("%d is leap year.",y);

else

printf("%d is not leap year.",y);

}

else

{

printf("%d is leap year.",y);

}

}

else

{

printf("%d is not leap year.",y);

}

return 0;

}

// 9.To find the greatest among three given numbers..

#include <stdio.h>

int main()

{

int x,y,z;

printf("Enter the three numbers.\n");

scanf("%d%d%d",&x,&y,&z);

if(x>=y&&x>=z)

{

printf("%d is greatest among three numbers.",x);

}

else

{

if(y>x&&y>z)

printf("%d is greatest among three numbers.",y);

else

printf("%d is greatest among three numbers.",z);

}

return 0;

}

// 10.calculate profit and loss percentage

#include <stdio.h>

int main()

{

float cost,sell,PL;

printf("Enter the cost and selling price of a product.\n");

scanf("%f%f",&cost,&sell);

PL=sell-cost;

PL>0?printf("%f%%profit",PL/cost\*100):printf("%f%%loss",PL/cost\*100); // we use conditional operater.

return 0;

}

// 11. To take marks of 5 subjects .marks are given out of 100 and passing marks is 33. display whether the candidate passed the examination or failed.

#include <stdio.h>

int main()

{

float sub1,sub2,sub3,sub4,sub5;

printf("Enter the 5 subjects marks.\n");

scanf("%f%f%f%f%f",&sub1,&sub2,&sub3,&sub4,&sub5);

if((sub1>33&&sub2>33)&&(sub3>33&&sub4>33))

{

if(sub5>33)

printf("passed the Examination.");

else

printf("fail the Examination.");

}

else

printf("fail the Examination.");

return 0;

}

// 12. To check given alphabet is in uppercase or lowercase.

#include <stdio.h>

int main()

{

char x;

printf("Enter the alphabet.\n");

scanf("%c",&x);

if(65>=x&&90<=x)

{

printf("%c is in uppercase.",x);

}

else

printf("%c is in lowercase.");

return 0;

}

//13. To check whether a given number is divisible by 2 and 3.

#include <stdio.h>

int main()

{

int num;

printf("Enter the alphabet.\n");

scanf("%d",&num);

if(num%2==0&&num%3==0)

printf("%d is divisible by 2 and 3.",num);

else

printf("%d is not divisible by 2 and 3.",num);

return 0;

}

// 14.TO CHECK WHETHER A GIVEN ALPHABET IS IN UPPERCASE OR LOWERCASE,DIGIT OR A SPECIAL CHARACTER.

#include <stdio.h>

int main()

{

char x1;

printf("Enter any one character.\n");

scanf("%c",&x1);

if(x1>=97&&x1<=122)

printf("character is an lowercase alphabet.");

else

{

if(x1>=65&&x1<=90)

printf("character is an uppercase alphabet.");

else

{

if(x1>=48&&x1<=57)

printf("a digit.");

else

printf("a special character.");

}

}

return 0;

}

// 15. DISPLAY WHETHER THE TRIANGLE IS VALID OR NOT. TAKES THE THREE SIDE OF TRINGLE.

#include <stdio.h>

int main()

{

int x,y,z;

printf("Enter the length of 3 side of tringle.\n");

scanf("%d%d%d",&x,&y,&z);

if(x+y>z&&y+z>x)

{

x+z>y?printf("tringle is valid."):printf("tringle is not valid.");

}

else

printf("tringle is not valid.");

return 0;

}

// 16. TAKES THE MONTH NUMBER AND DISPLAY NUMBER OF DAYS IN THAT MONTH.

#include <stdio.h>

int main()

{

int mon;

printf("Enter the Month number.\n");

scanf("%d",&mon);

if(mon>0&&mon<5)

{

if(mon==1)

printf("31-days in january.");

else

{

if(mon==2)

printf("28-days in february.");

else

(mon==3)?printf("31-days in March."):printf("30-days in April.");

}

}

else

{

if(mon>4&&mon<9)

{

if(mon==5)

printf("31-days in may.");

else

{

if(mon==6)

printf("30-days in june.");

else

(mon==7)?printf("31-days in july."):printf("31-days in August.");

}

}

else

{

if(mon==9)

printf("30-days in September.");

else

{

if(mon==10)

("31-days in October.");

else

(mon==11)?printf("30-dayds in November."):printf("30-days in December.");

}

}

}

return 0;

}