**JRassignment 3**

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

#include<stdio.h>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n<=0)

printf("Number is non positive %d",n);

else

printf("Number is positive %d",n);

}

//2. Write a program to check whether a given number is divisible by 5 or not.

#include<stdio.h>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n%5)

printf("%dNumber is not divisible by 5 ",n);

else

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

return 0;

}

//3. Write a program to check whether a given number is an even number or an odd number.

#include<stdio.h>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n%2)

printf("%d Number is odd",n);

else

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

return 0;

}

/\* 4. 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 n;

printf("Enter a number");

scanf("%d",&n);

if(2\*(n/2)==n)

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

else

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

return 0;

}

//5. Write a program to check whether a given number is a three-digit number or not.

#include<stdio.h>

int main()

{

int n,count=0,k;

printf("Enter a number");

scanf("%d",&n);

k=n;

while(n!=0)

{

n=n/10;

count++;

}

if(count==3)

printf("%d number is three digit number",k);

else

printf("%d Numberis not three digit number ",k);

return 0;

}

// 6. Write a program to print greater between two numbers. Print one number of both are the same.

#include<stdio.h>

int main()

{

int n,a;

printf("Enter a number");

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

if(n==a)

printf("%d both the number is same",n);

else if(n>a)

printf("%d number is greater",n);

else

printf("%d is greater number",a);

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 the three coficients of quadratic equation ");

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

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

if(d>0)

printf("Roots are real and distict");

else if(d==0)

printf("Roots are real and equal");

else

printf("Roots are imaginary");

}

//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%100==0)

{

if(year%400==0)

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

else

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

}

else

{

if(year%4==0)

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

else

printf("%d year is not leap year ",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)

{

if(a>c)

printf("%d is greatest number",a);

else

printf("%d number is greatest ",c);

}

else

{

if(b>c)

printf("%d is greatest",b);

else

printf("%d is greatest ",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()

{

int cp,sp,p,pc,l,lp;

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

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

if(sp>cp)

{

p=sp-cp;

pc=(p\*100)/cp;

printf(" profit percentage is = %d",pc);

}

else

{

l=cp-sp;

lp=(l\*100)/cp;

printf("loss percentage is = %d",lp);

}

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 e,h,m,s,u;

printf("Enter the marks of 5 subject of a students");

scanf("%d%d%d%d%d",&e,&h,&m,&s,&u);

if(e>=33&& h>=33&& m>=33&& s>=33&& u>=33)

printf("pass");

else

printf("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;

int i;

printf("Enter a alphabet");

scanf("%c",&ch);

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

printf("%c alphabet is in uppercase",ch);

else

printf("%c alphabet is in lowercase",ch);

}

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

#include<stdio.h>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

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

printf("%d number is divisible by 3 and 2 ",n);

else

printf("%d number is not divisible by 3 and 2",n);

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 n;

printf("Enter a number");

scanf("%d",&n);

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

printf("%d number is divisible by 7 or 3 ",n);

else

printf("%d number is not divisible by 7 or 3",n);

return 0;

}

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

#include<stdio.h>

int main()

{

int n;

printf("Enter a number");

scanf("%d",&n);

if(n>0)

printf("%d is positive",n);

else if(n==0)

printf("%d number is zero",n);

else

printf("%d is negative",n);

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 any key from keyboard");

scanf("%c",&ch);

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

printf("character is in uppercase");

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

printf("charcter is in lower case");

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

printf("charcter is digit");

else

printf("chacter is special");

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("not valid triangle");

}

/\* 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 n;

printf("Enter month number");

scanf("%d",&n);

switch(n)

{

case 1:

printf("Days in january 31");

case 2:

printf("Days in febuary 28/29");

break;

case 3:

printf("Days in march 31");

break;

case 4:

printf("Days in april 30");

break;

case 5:

printf("Days in may 31");

break;

case 6:

printf("Days in june 30");

break;

case 7:

printf("Days in july 31");

break;

case 8:

printf("Days in august 31");

break;

case 9:

printf("Days in september 30");

break;

case 10:

printf("Days in october 31");

break;

case 11:

printf("Days in novmber 30");

break;

case 12:

printf("Days in december 31");

break;

default:

printf("Enter valid month number");

}

return 0;

}