//DAY-3

//1.Program to print the factors of given integer

#include <stdio.h>

int main()

{

int num,i;

printf("Enter the positive integer:\n");

scanf("%d",&num);

printf("Factors of %d are:\n",num);

for(i=1;i<=num;++i)

if(num%i==0)

printf("%d\t",i);

return 0;

}

//2. Program to find prime factors of given integer

#include <stdio.h>

int main()

{

int i,j,num,prime;

printf("Enter the number:\n");

scanf("%d",&num);

printf("Prime factors of %d are\n",num);

for(i=2;i<=num;i++)

{

if(num%i==0)

{

prime=1;

for(j=2;j<=i/2;j++)

{

if(i%j==0)

{

prime=0;

break;

}

}

if(prime==1)

printf("%d\t",i);

}

}

return 0;

}

//3.Program to check if given number is happy or not

#include <stdio.h>

int ishappynum(int num)

{

int rem=0,sum=0;

while(num>0)

{

rem=num%10;

sum=sum+(rem\*rem);

num=num/10;

}

return sum;

}

int main()

{

int num,res;

printf("Enter the number:\n");

scanf("%d",&num);

res=num;

while(res!=1&&res!=4)

res=ishappynum(res);

if(res==1)

printf("%d is happy number",num);

else if(res==4)

printf("%d is not happy number",num);

return 0;

}

//4. Program to check whether a number is pronic or not using ternary operator

#include <stdio.h>

int main()

{

int num,i,res,flag;

printf("Enter the number:\n");

scanf("%d",&num);

for(i=0;i<num;i++)

{

flag=((i\*(i+1)==num)?(0):(1));

}

if(flag==1)

printf("%d is pronic number",num);

else

printf("%d is not pronic number",num);

return 0;

}

//5.Program to convert decimal to binary number

#include<stdio.h>

void main()

{

int a[10], n, i, j;

printf("Enter a decimal Number: ");

scanf("%d",&n);

for(i = 0; n > 0; i++)

{

a[i] = n % 2;

n = n / 2;

}

printf("Binary representation of the given Number is ");

for(j = i - 1; j >= 0; j--)

{

printf("%d",a[j]);

}

}

//6.Program to convert decimal to octal number

#include<stdio.h>

void main()

{

int a[10], n, i, j;

printf("Enter a decimal Number: ");

scanf("%d",&n);

for(i = 0; n > 0; i++)

{

a[i] = n % 8;

n = n / 8;

}

printf("Octal representation of the given Number is ");

for(j = i - 1; j >= 0; j--)

{

printf("%d",a[j]);

}

}

//7.Program to convert hexadecimal to Binary

#include<stdio.h>

void main()

{

char num[10];

int i=0;

printf("Enter a hexadecimal Number: ");

scanf("%s",num);

printf("Eq binary value:\n");

while(num[i])

{

switch(num[i])

{

case '0':

printf("0000");break;

case '1':

printf("0001");break;

case '2':

printf("0010");break;

case '3':

printf("0011");break;

case '4':

printf("0100");break;

case '5':

printf("0101");break;

case '6':

printf("0110");break;

case '7':

printf("0111");break;

case '8':

printf("1000");break;

case '9':

printf("1001");break;

case 'A':

printf("1010");break;

case 'B':

printf("1011");break;

case 'C':

printf("1100");break;

case 'D':

printf("1101");break;

case 'E':

printf("1110");break;

case 'F':

printf("1111");break;

}

i++;

}

}

\*/