/\* A1. Check whether a given number can be expressed as the sum of two prime number

i/p

Enter a positive integer: 34

Output

34 = 3 + 31

34 = 5 + 29

34 = 11 + 23

34 = 17 + 17

NoofWays = 4

NoofWays=-1 \*/

#include <stdio.h>

int isPrime(int);

int main() {

int n ,l,j,c=0,i;

int pn[20];

printf("Enter n value: ");

scanf("%d",&n);

for(int i=0,j=0;i<n;i++)

{

if(isPrime(i)==1)

{

pn[j]=i;

/\*printf("%d\n",i);

j++;

}

}

l=sizeof(pn) / sizeof(pn[0]);

printf("\n%d size: ",l);

for(i=0;pn[i]<=n/2;i++)

{

for(j=l;j>=0;j--)

{

/\*printf("\n %d + %d",pn[i],pn[j]);

if(pn[i]+pn[j]==n)

{

printf("\n %d + %d",pn[i],pn[j]);

c=c+1;

}

}

}

if(c!=0)

printf("No.of ways:%d",c);

else

printf("No.of ways : %d",-1);

return 0;

}

int isPrime(int n)

{

int i,f=0;

if(n==0 || n==1)

return 0;

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

{

if(n%i==0)

{

f=1;

break;

}

}

if(f==1)

return 0;

else

return 1;

}

/\* A2.Program to find nth number made of given four digits 1, 4,6 and 9 as the only digits..

Input Format:

The First Line Of Input Contains T no of test cases

The Second Line Of Input Contains N as input taken.

Output Format:

Print the number of digits in the nth number .

Constraints:

1<=T<=100

1<=N<=100

Examples:

Input : 6

Output : 14

1,4 6, 9.11,14

Input : 21

Output : 111 \*/

----------------------------------------------------------------------------------------

#include <stdio.h>

int digits(int);

int main() {

int n,c=0,i;

printf("Enter n:");

scanf("%d",&n);

for(i=1;c!=n;i++)

{

if(digits(i)==1)

c=c+1;

/\*printf("c:%d",c);

}

printf("ans:%d",--i);

return 0;

}

int digits(int n){

int i, digit;

while(n>0)

{

/\* printf("\nn:%d\n",n);

digit= n%10;

/\* printf("digit:%d\t",digit);

n=n/10;

if(digit !=1 && digit!=4 && digit!=6 && digit!=9)

return 0;

}

return 1;

}

A3. /\*Write a program to find the n-th number made of prime digits

Input Format:

First Line Of Input Contains T Number Of Test Cases

Second Line Of Input Contains an input Number N.

Output Format:

Print the Nth number of sequence and it should be only prime.

Constraints:

1<=T<=100

1<=N<=10000

Examples :

Input :

1

10

Output :

33 \*/

---------------------------------------------------------------------

#include <stdio.h>

int digits(int);

int main() {

int n,c=0,i;

printf("Enter n:");

scanf("%d",&n);

for(i=1;c!=n;i++)

{

if(digits(i)==1)

c=c+1;

/\*printf("c:%d",c);

}

printf("ans:%d",--i);

return 0;

}

int digits(int n)

{

int i, digit;

while(n>0)

{

digit= n%10;

n=n/10;

If(digit !=2 && digit!=3 && digit!=5 && digit!=7)

return 0;

}

return 1;

}

A4. /\* rotate array every kth element

1 2 3 4 5 6 7 8 9

k= 3

3 2 1 6 5 4 9 8 7 \*/

------------------------------------------

#include <stdio.h>

int \* rotate(int [],int);

int main() {

int \*b=NULL;

int arr[9]={1,2,3,4,5,6,7,8,9};

int key,i;

printf("\nEnter key:");

scanf("%d",&key);

rotate(arr,key);

for(i=0;i<9;i++)

printf("%d\t", arr[i]);

return 0;

}

int\* rotate(int a[],int key){

int i,j,l,t;

for( i=0;i<9;i=i+key)

{

/\*printf("\ni:%d\n",i);

l=(i+key-1);

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

{

t=a[key+i-1];

a[key+i-1]=a[j];

a[j]=t;

/\*printf("\nj:%d\n",j);

}

/\*printf("\n");

}

/\*return a;

}

A5.

/\* Write a c program to print alphabet triangle.

Input: 5

Output:

1

121

12321

1234321

123454321 \*/

-------------------------------------------------------------

#include <stdio.h>

int main() {

int n,i,j;

printf("Enter n :");

scanf("%d",&n);

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

{

for(j=1;j<=n-i;j++)

printf(" ");

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

printf("%d",j);

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

printf("%d",j);

printf("\n");

}

return 0;

}

/\* Write a c program to print alphabet triangle.

Input: 5

Output:

A

ABA

ABCBA

ABCDCBA

ABCDEDCBA \*/

#include <stdio.h>

int main() {

int n,i,j;

printf("Enter n :");

scanf("%d",&n);

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

{

for(j=1;j<=n-i;j++)

putchar(32);

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

putchar(64+j);

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

/\*printf("%d",j);

putchar(64+j);

putchar(10);

}

return 0;

}