# **Practice Set - 3**

# **Displaying prime Number in an Range**

u have been given the task to accept two numbers n and m and display prime numbers

Sample Input

3

10 100

200 250

300 389

Sample Output

11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

211 223 227 229 233 239 241

307 311 313 317 331 337 347 349 353 359 367 373 379 383 389

Explanation

3 is number of test cases

10 and 100 specify the range m and n values

11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 specify the output values

void displayPrimes(int x,int y)

{

long long int a,b,isflag;

//complete the code

for(;x<=y;x++){

a=x;b=2;isflag=0;

while(b<=a/2){

if((a%b)==0){isflag=1;break;}

b++;

}

if(isflag==0)printf("%lld ",x);

}

printf("\n");

}

printf("\n");

}

int main()

{

int m,n,t; //isPrime is used as flag variable

scanf("%d",&t);

while(t--)

{

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

displayPrimes(m,n);

}

return 0;

}

# **Strong Number**

U have been given the task to check whether number is strong number or not

Sample Input

3 //number of test cases

2

145

300

Sample Output

Yes

Yes

No

Explanation: 3 is number of test cases

2

145

300

are the sample Input

int displayStrong(int num)

{

int a,c=num,fact,sum=0;

while(num>0){

fact=1;

a=num%10;

while(a>0){fact=fact\*a;a--;}

num=num/10;

sum=sum+fact;

}

if(sum==c)return 1;

else return 0;

}

int main()

{

int num,i,f,r,sum=0,temp,t;

scanf("%d",&t);

while(t--)

{

scanf("%d",&num);

if(displayStrong(num)==1)

printf("%d is strong number\n",num);

else

printf("%d is not strong number\n",num);

}

return 0;

}

# **Reverse of a number**

You have been given the task to display reverse of a number.Your program should check overflow condition.

Constraints

INT\_MIN<=NUM<=INT\_MAX

INT\_MIN and INT\_MAX are avialabale in limits.h

Sample Input

3

123456

-123

2147483647

Sample Output

654321

-321

0

Explanation

3 is number of test cases

Since 2147483647 will give overflow value hence in the output value displayed should be 0

int myReverse(int num){

int locks=0,rev=0;

if((num>INT\_MIN)&&(num<INT\_MAX)){

if(num<0){num=-num;locks=1;}

while(num>0){

rev=rev\*10+num%10;

num=num/10;

}

if(locks==1)rev=-rev;

}

return rev;

}

int main()

{

int t,num,r;

scanf("%d",&t);

while(t--)

{

scanf("%d",&num);

r=myReverse(num);

printf("%d\n",r);

}

return 0;

}

# **Check for palindrome**

U have been given the task to print a number if and only if it a palindrome number.Complete the coding of given function and return its reverse.

Sample Input

3

123

234

101

Sample Output

101

Explanation

3 is number of test cases

123

234

101

are sample Input

only 101 is displayed as it is palindrome

int checkPalindrome(int num)

{ int a=num,rev=0,l=0;

if(num<0){num=-num;l=1;}

while(num>0){

rev=rev\*10+num%10;

num=num/10;

}

if(l==1)rev=-rev;

if(rev==a)return a;

else return 0;

}

int main()

{

int t,num,r;

scanf("%d",&t);

while(t--)

{

scanf("%d",&num);

r=checkPalindrome(num);

if(num==r)

printf("%d\n",r);

}

return 0;

}