

1-TOPSHIRQ

5.	$\text{ctg}(x)$	$\pi/4$	$\pi/2$	10
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DASTUR KODI

```
#include <iostream>
#include "math.h"
using namespace std;
int main()
{
    system("color 70");
    float ctg;
    float A=M_PI/4,B=M_PI/2;
    float d=(A-B)/10;
    int m=10;
    for(int i=0;i<m;i++)
    {
        ctg=cos(A)/sin(A);
        cout<<"ctg("<<A<<") = "<<ctg<<endl;
```

A=A+d;

}

return 0;

}

## DASTUR NATIJASI

```
D:\giyosddinow\programing\projekt\c++\1-topshirq.exe
ctg(0.785398) = 1
ctg(0.706858) = 1.17085
ctg(0.628319) = 1.37638
ctg(0.549779) = 1.63185
ctg(0.471239) = 1.96261
ctg(0.392699) = 2.41421
ctg(0.314159) = 3.07768
ctg(0.235619) = 4.1653
ctg(0.15708) = 6.31375
ctg(0.0785398) = 12.7062

-----
Process exited after 0.1472 seconds with return value 0
Для продолжения нажмите любую клавишу . . .
```

## 2-TOPSHIRQ

5.	$s = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \dots + \frac{x^n}{n!}$	$1 \leq x \leq 2$	$y = e^x$	40
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## DASTUR KODI

```
#include <iostream>
```

```
#include <cmath>
```

```
using namespace std;
```

```
int main() {
```

```
float s = 1, x;
int n = 40;
cout << "x= ";
cin >> x;
do {
    if (x >= 1 && x <= 2) {
        cout << "qabul qilindi" << endl;
        break; return main();
    } else {
        cout << "aka x ni togri kiriting" << endl;
        break;
    }
} while (true);
int i = 1;
do {
    float fakt = 1;
    int g = 1;
    do {
        fakt *= g;
        g++;
    } while (g <= i);
    s += pow(x, i) / fakt;
```

```
    i++;  
} while (i <= n);  
cout << "natija = " << s << endl;  
cout << "funksiya = " << exp(x) << endl;  
return 0;  
}
```

## DASTUR NATIJASI

D:\gijosddinov\programing\projekt\c++\2-topshirq.exe

```
x= 2  
qabul qilindi  
natija = 7.38906  
funksiya = 7.38906  
x= 12  
aka x ni togri kiriting  
x= 1.5  
qabul qilindi  
natija = 4.48169  
funksiya = 4.48169  
x= 0.5  
aka x ni togri kiriting  
x= 1  
qabul qilindi  
natija = 2.71828  
funksiya = 2.71828  
x= 43  
aka x ni togri kiriting  
x=
```

### 3-TOPSHIRQ

5. Berilgan ikki nuqtaning koordinatasi asosida ular orasidagi masofani topuvchi dastur tuzing.

### DASTUR KODI

```
#include "iostream"
#include <cmath>
using namespace std;
int main()
{
    do{
        float x1,x2,y1,y2,d;
        cout<<"birinchi nuqtani kordinatalarini kiriting"<<endl;
        cout<<"x1 = ";
        cin>>x1;
        cout<<"y1 = ";
        cin>>y1;
        cout<<"ikkinchi nuqtani kordinatalarini kiriting"<<endl;
        cout<<"x2 = ";
        cin>>x2;
```

```

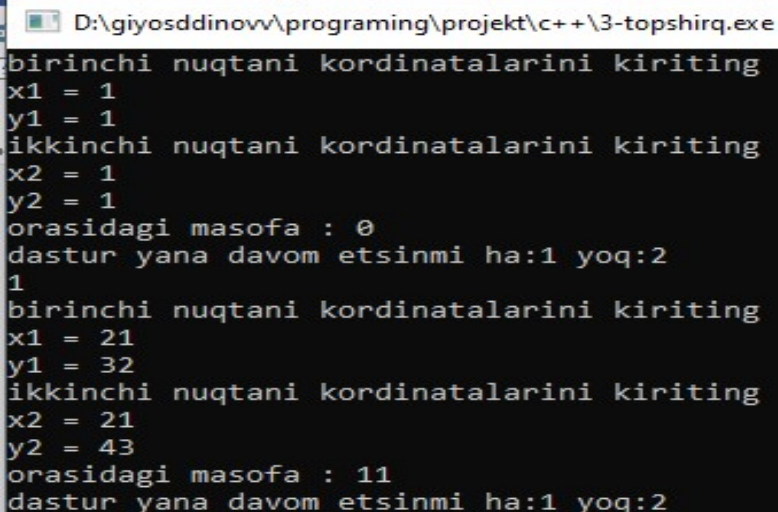
    cout<<"y2 = ";
    cin>>y2;
    d=sqrt(pow((x1-x2),2)+pow((y1-y2),2));
    cout<<"orasidagi masofa : "<<d<<endl;

    int a;

    cout<<"dastur yana davom etsinmi ha:1 yoq:2\n";
    cin>>a;
    if(a==1){
        continue;
    }
    else{
        break;
    }
}while(1);
return 0;
}

```

## DASTUR NATIJASI



```

D:\giyosddinov\programing\projekt\c++\3-topshirq.exe
birinchi nuqtani kordinatalarini kiriting
x1 = 1
y1 = 1
ikkinchi nuqtani kordinatalarini kiriting
x2 = 1
y2 = 1
orasidagi masofa : 0
dastur yana davom etsinmi ha:1 yoq:2
1
birinchi nuqtani kordinatalarini kiriting
x1 = 21
y1 = 32
ikkinchi nuqtani kordinatalarini kiriting
x2 = 21
y2 = 43
orasidagi masofa : 11
dastur yana davom etsinmi ha:1 yoq:2

```