```
def f(x):
    return x**2
c=1
E=0.1

n=100
x1=c
x2=c
delx=10**(-8)
d=0.0000000001
def fPrime(x):
    return(f(x+delx-f(x-delx))/(2*delx))
def L(x):
    return f(c)+fPrime(c)*(x-c)

for i in range (n):
    x1=x1-d
    if abs (f(x1)-L(x1)) <= E:
              print(x1)
              break
else:
    print("No x1 is found")
for i in range(n):
    x2=x2+d
    if abs(f(x2)-L(x2)) <= E:
        print(x2)
        break
else:
    print("No x2 is found")
```

```
0.9999999999
1.0000000001
```

```
def f(x):
    return np.sin(x)
c=np.pi/4
E=0.05

n=100
x1=c
x2=c
delx=10**(-8)
d=0.0000000001
def fPrime(x):
    return(f(x+delx-f(x-delx))/(2*delx))
def L(x):
    return f(c)+fPrime(c)*(x-c)

for i in range (n):
    x1=x1-d
    if abs (f(x1)-L(x1)) <= E:
              print(x1)
              break
else:
    print("No x1 is found")
for i in range(n):
    x2=x2+d
    if abs(f(x2)-L(x2)) <= E:
        print(x2)
        break
else:
    print("No x2 is found")
```

```
0.7853981632974483
0.7853981634974483
```

```
def f(x):
    return np.exp(x)
c=0
E=0.01

n=100
x1=c
x2=c
delx=10**(-8)
d=0.0000000001
def fPrime(x):
    return(f(x+delx-f(x-delx))/(2*delx))
def L(x):
    return f(c)+fPrime(c)*(x-c)

for i in range (n):
    x1=x1-d
    if abs (f(x1)-L(x1)) <= E:
              print(x1)
              break
else:
    print("No x1 is found")
for i in range(n):
    x2=x2+d
    if abs(f(x2)-L(x2)) <= E:
        print(x2)
        break
else:
    print("No x2 is found")
```

```
-1e-10
1e-10
```