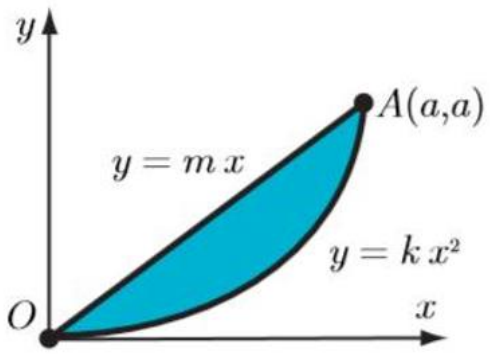
17.05.2020

Çağın AĞIRDEMİR

BCA 603 Hafta 10 Ödev

SORU:

Homework 4 : Determine the centroid of the area where A(a, a). Use integration.



CEVAP

```
clc,clear
syms y x
```

Denklem tanılmlamaları ve denklemlerin çizimi

```
m=1; %eğim 1
x1=0:0.1:1;
y1=m*x1;
y2=1*x1.^2;
plot(x1,y1);
hold on
plot(x1,y2);
```

Hesaplamalar

$$m = \int_0^1 x - x^2 \, dx$$

```
m=int((x-x^2),x,0,1);
```

```
disp(m);
```

$$mx = \frac{1}{2}\int_0^1 x^2 - x^{2^2}\, dx$$

```
mx=int(((x)^2-(x^2)^2),x,0,1)*0.5;
disp(mx);
```

$$my = \int_0^1 x(x - x^2)\, dx$$

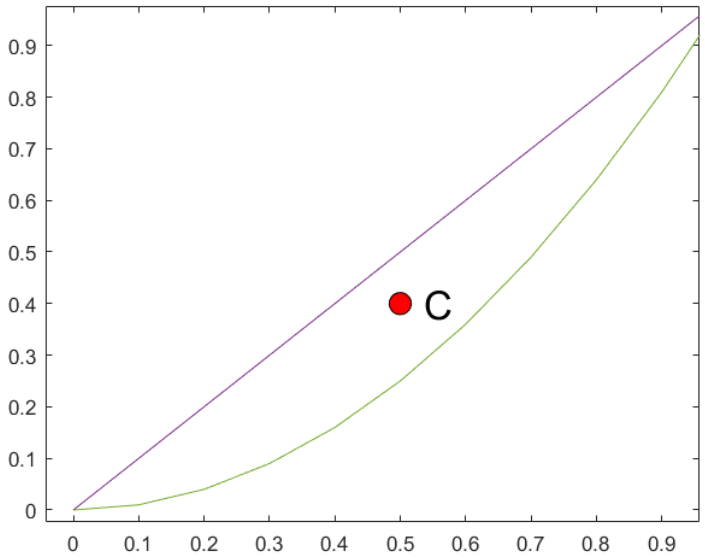
```
my=int(x*((x)-(x^2)),x,0,1);
disp(my);
```

```
xC=my/m;
yC=mx/m;
```

Ekrana çizdirme komutları

```
plot(xC,yC,'o','MarkerSize',11,'MarkerEdgeColor','k','Marke
rFaceColor','r');
text(xC,yC,'  C','FontSize',20);
```

Ekran Çıktısı



Ek: hafta10_4.m