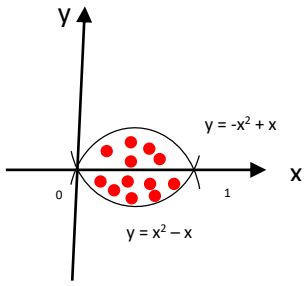
Integral

(a)

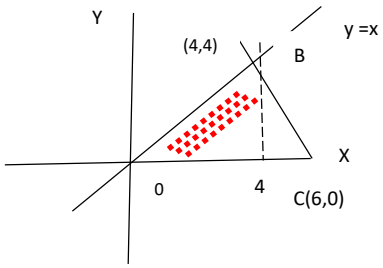


$\int_0^1[(-x^2+x)-(x^2-x)]dx$

$\int_0^1(-2x^2+2x)dx$

$-2\frac{x^3}{3}+x^2]_0^1 = -\frac{2}{3}.1+1-0=\frac{1}{3}$

(b)



(BC) $\Rightarrow -\frac{4}{2}=-2$

(4,4) a = -?

y – 4 = -2(x-4)

y = -2x + 12

$\int_0^4 xdx + \int_4^6(-2x+12)dx =$

$=\frac{x^2}{2}]_0^4+(-x^2+12x]_4^6 =$

$\frac{4^2}{2}+[-6^2+12.6-(-4^2+12.4)]=8+4=12$