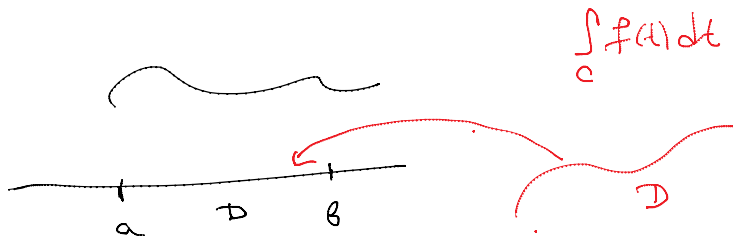


$$f(x) = e^{x^2}, \quad \int f(x) dx, \quad t = x^2$$

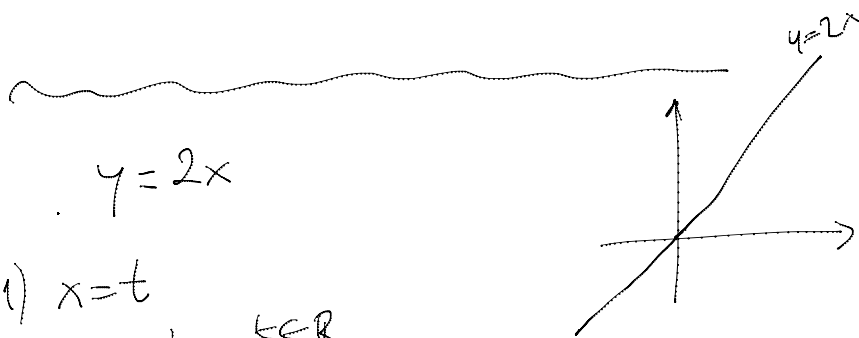
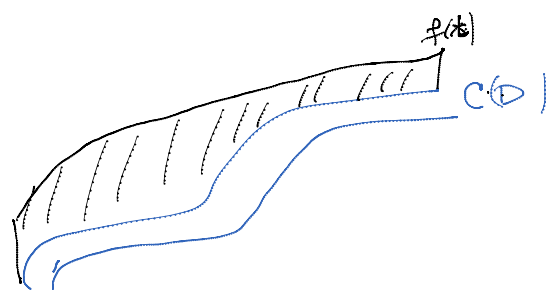
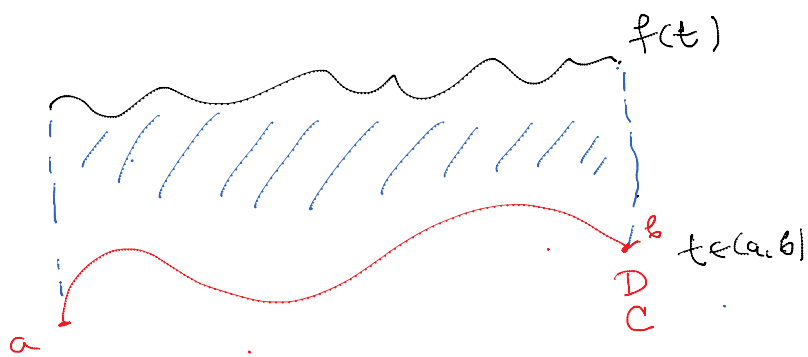
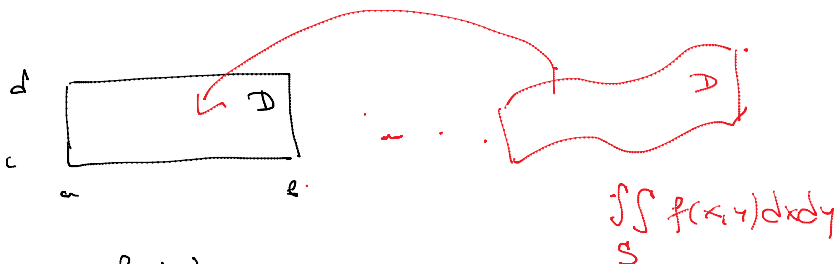
$$\downarrow \quad \downarrow \quad dt = 2x dx$$

$$\int f(t) dt$$

$$\int_a^b f(x) dx$$



$$\int_a^b \int_c^d f(x, y) dx dy$$

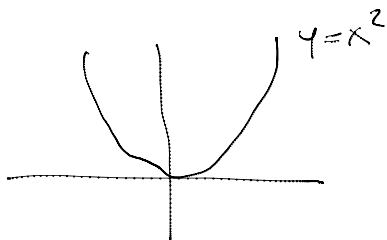


1)  $x = t$   
 $y = 2t \quad t \in \mathbb{R}$

2)  $x = \frac{t}{2}$   
 $y = t$

3)  $x = -t$   
 $y = -2t$

$$y = x^2$$



1)  $t = x, \quad y = t^2$

2)  $x = -t, \quad y = t^2$

3)  $x = 3t, \quad y = 9t^2$

⋮

