

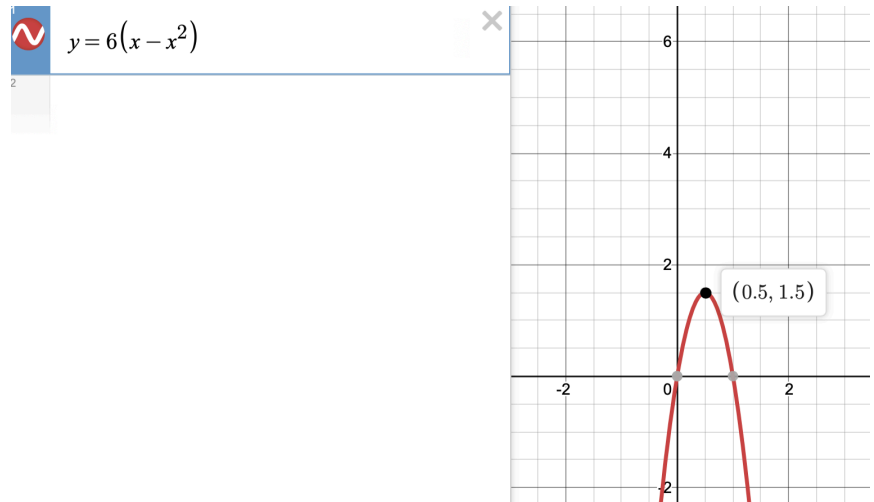
1.

$$\int f_x(x) dx = \int_{-\infty}^0 0 dx + \int_1^{+\infty} 0 dx + \int_0^1 C(x - x^2) = C \int_0^1 (x - x^2) dx \rightarrow \frac{1}{C} = \int_0^1 (x - x^2) dx = \frac{1}{6} \rightarrow C = 6$$

2.

$$\text{Max } f(x) = 1,5$$

Max $g(x) = 1$ (poichè
distribuzione uniforme $[0,1]$)



$$M \geq \frac{1,5}{1}$$

$$M = 1,5$$

3-4.

Total: 10000 Accepted: 6578
Ratio (A/T): 0.6578

