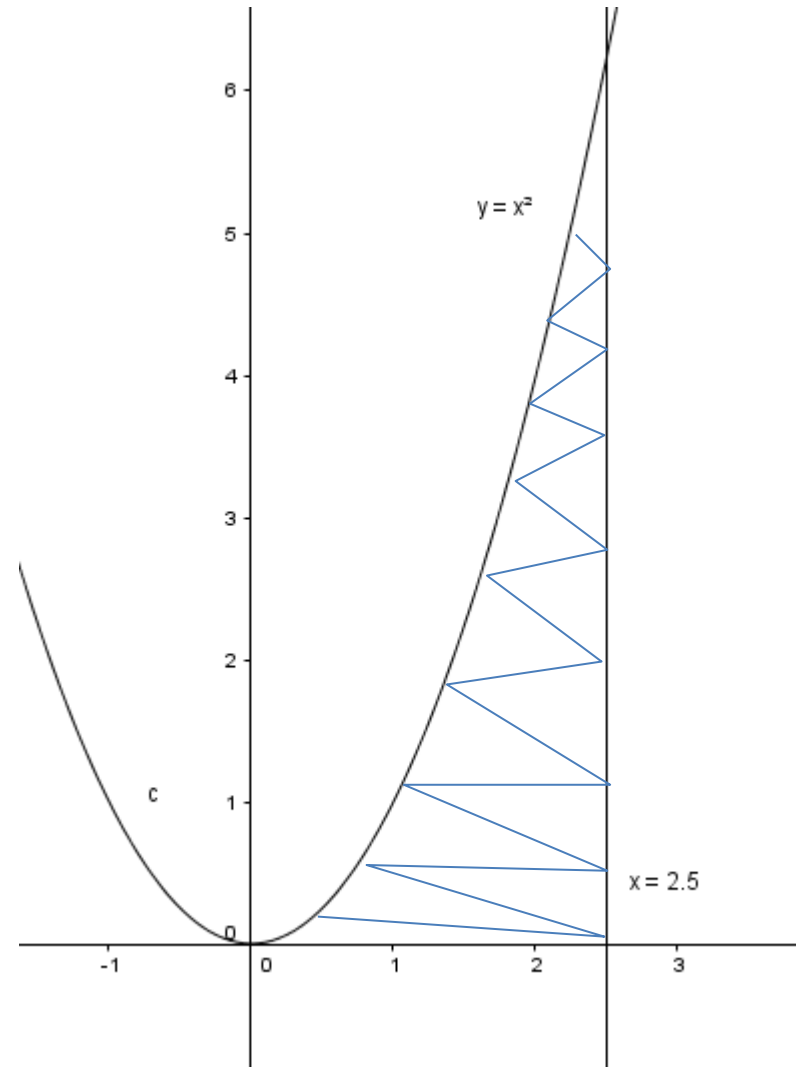


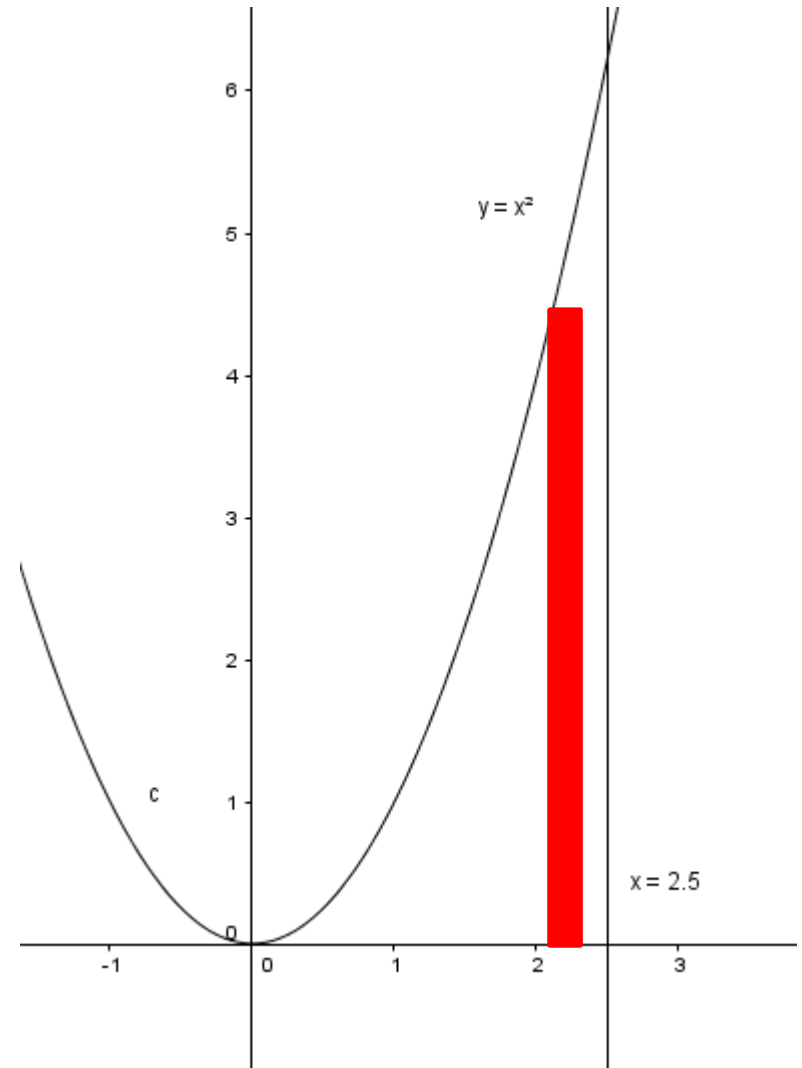
Kalkulus Integral

Luas daerah bidang rata

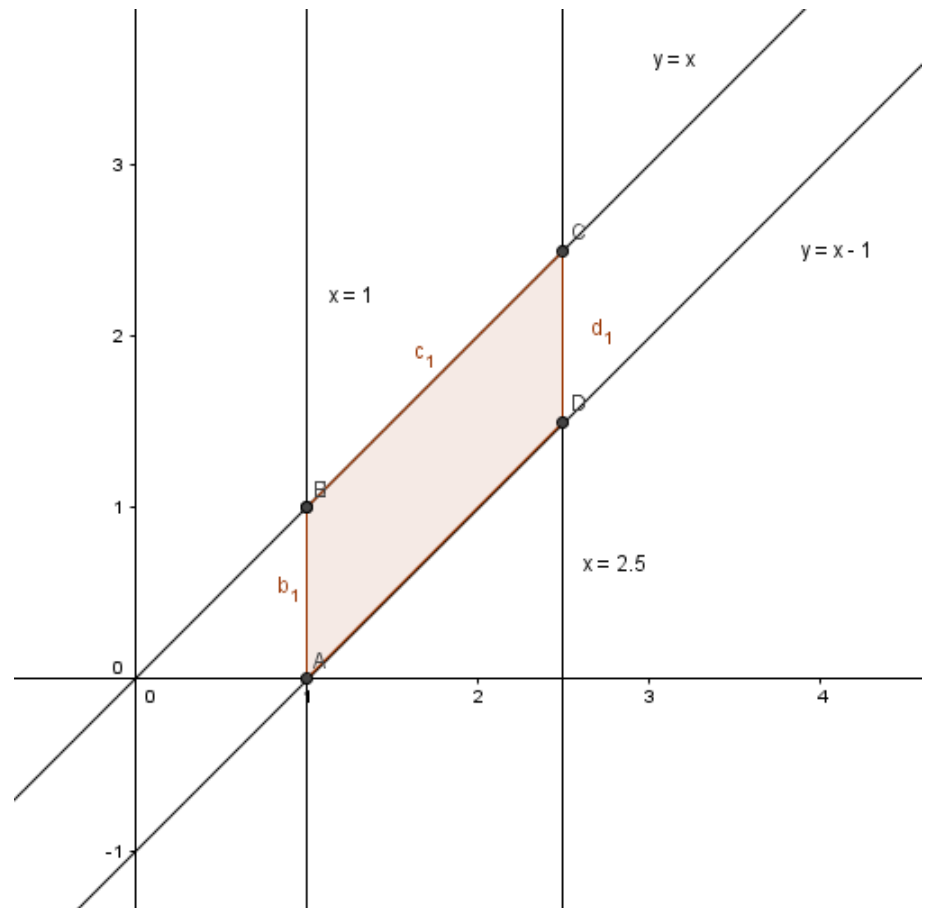
- Luas?



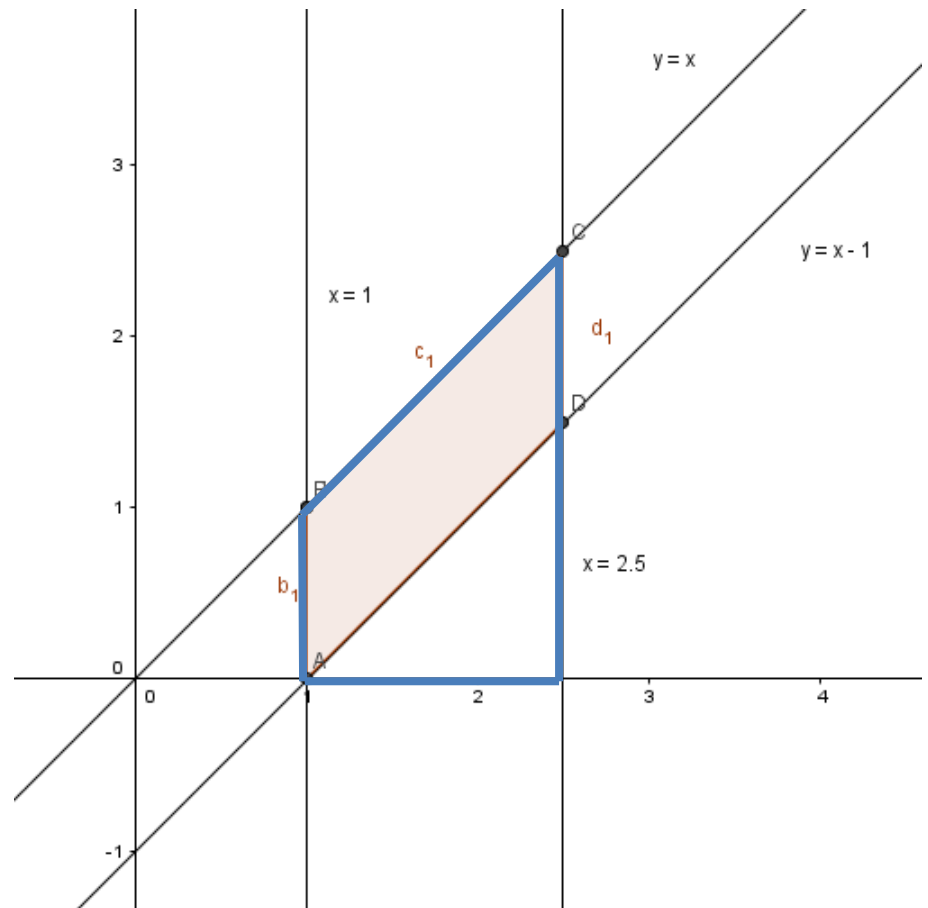
- Panjang poligon y
- Lebar poligon Δx
- Luas poligon $= y \Delta x$
- $$\text{Luas} = \lim_{|P| \rightarrow 0} \sum_{i=1}^n y \Delta x_i$$
- $$\text{Luas} = \int_0^{2.5} x^2 dx$$



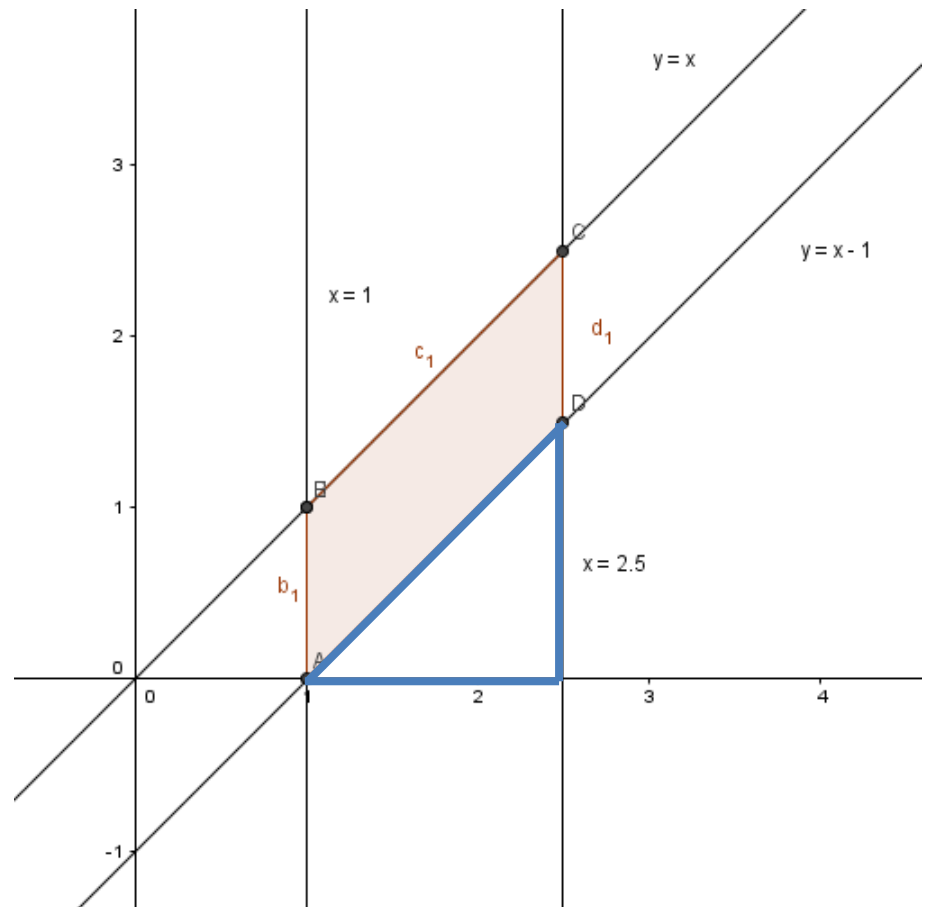
- Luas ?



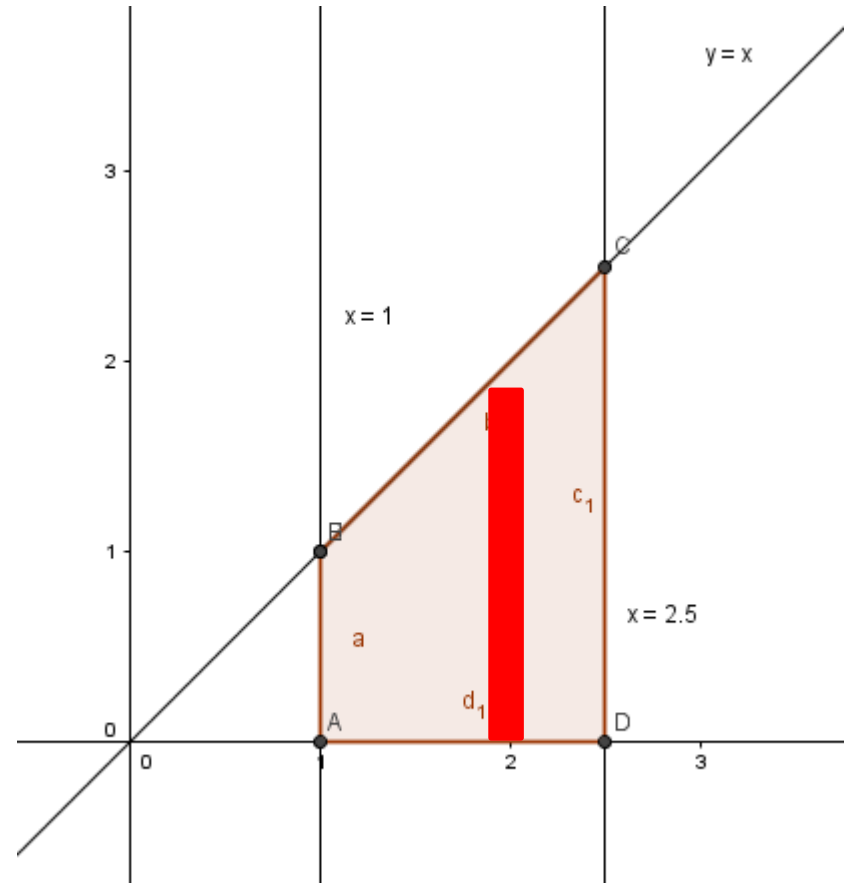
- Luas daerah 1



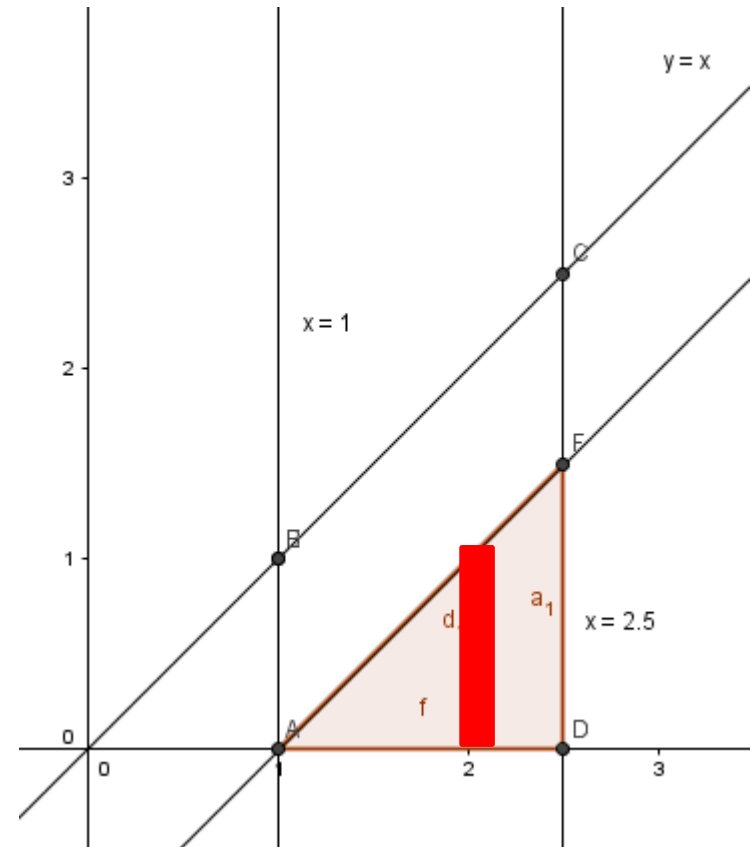
- Luas daerah 2



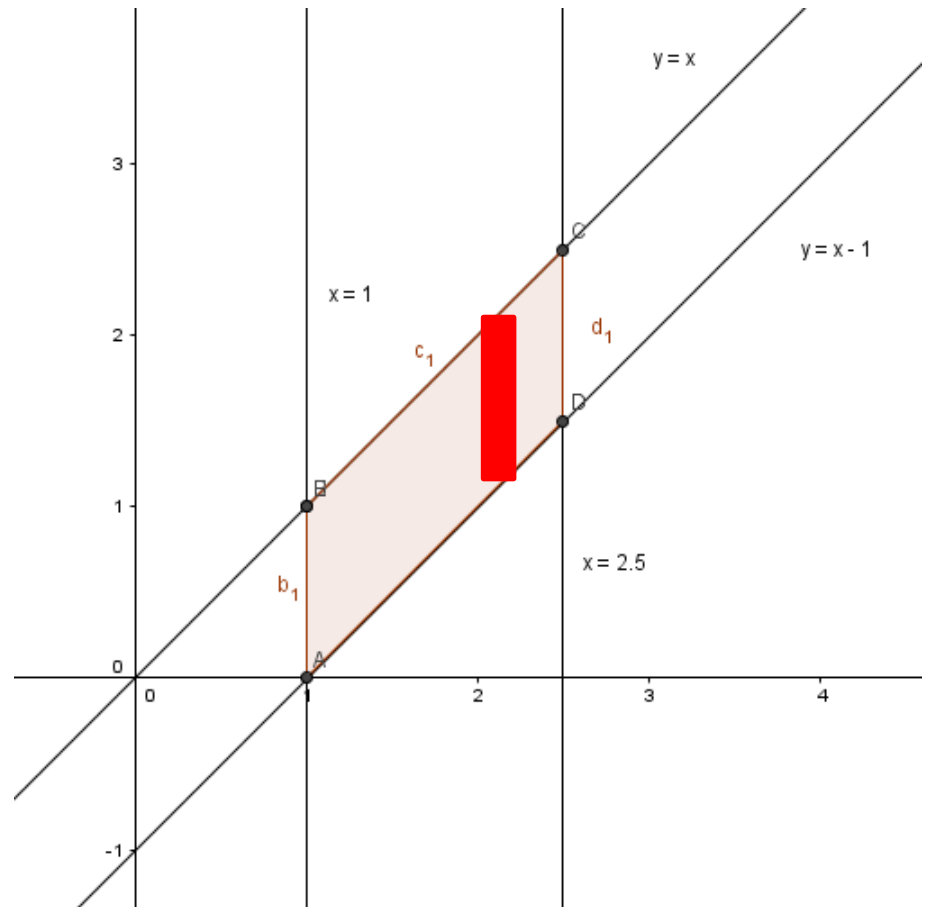
- Luas daerah 1 = $\int_1^{2.5} x dx$



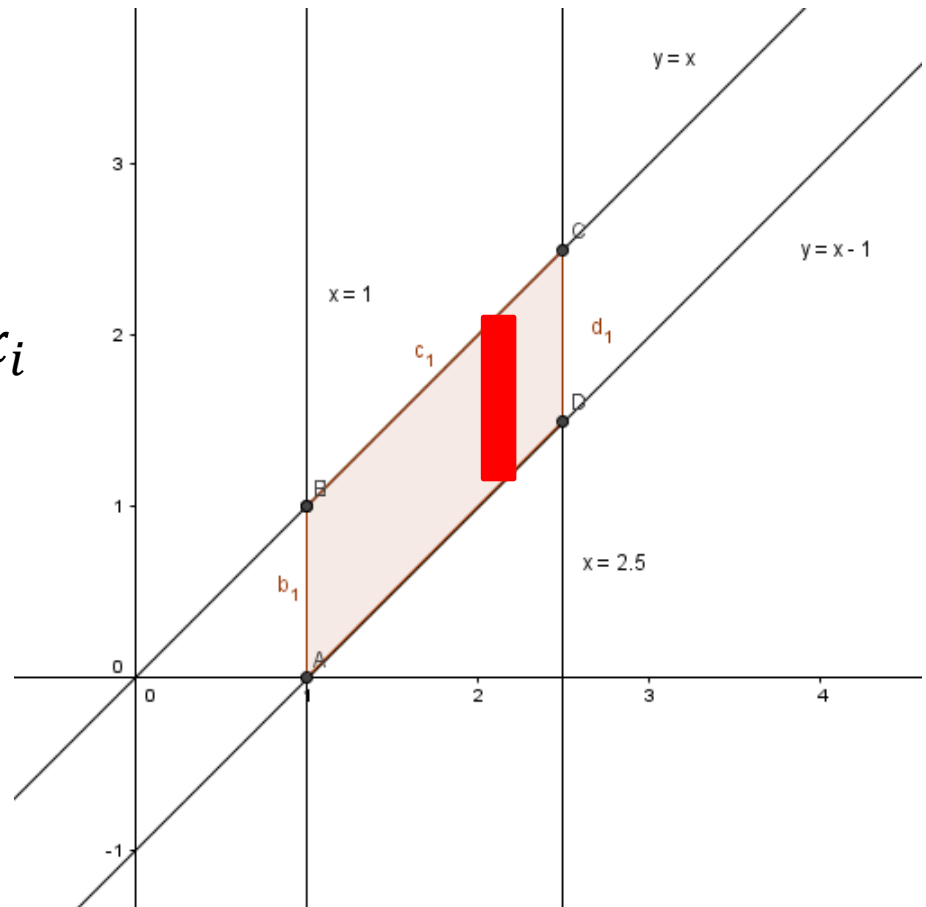
- Luas daerah 2 = $\int_1^{2.5} (x - 1) dx$



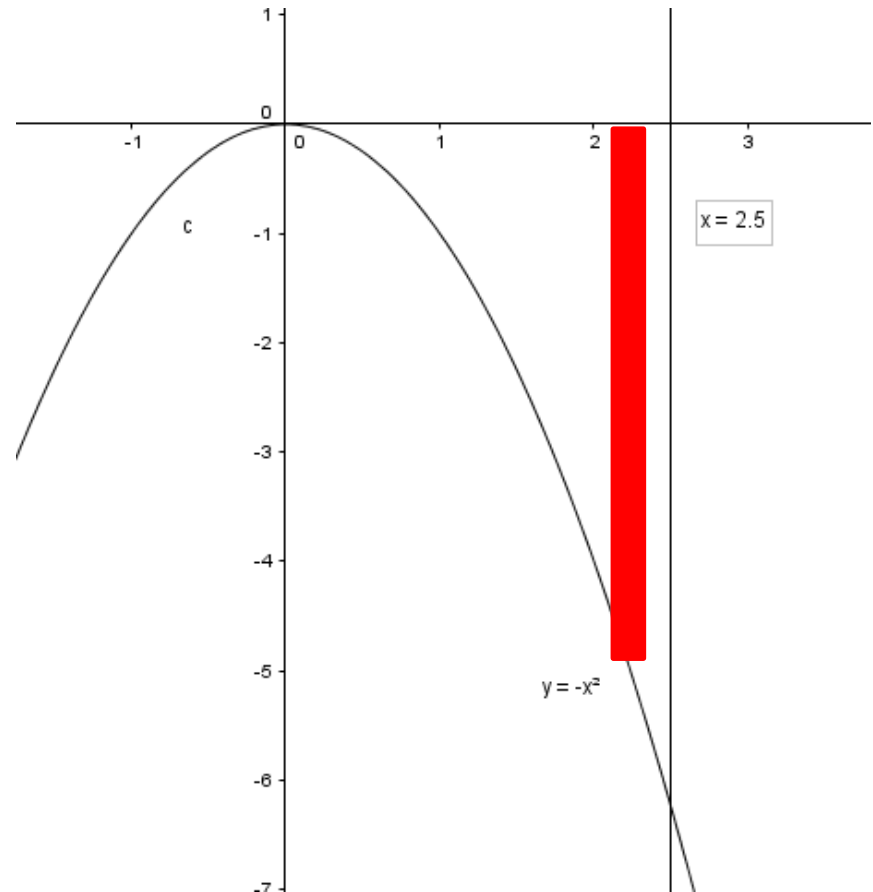
- $\text{Luas} = \int_1^{2.5} x - (x - 1) dx$
- atau



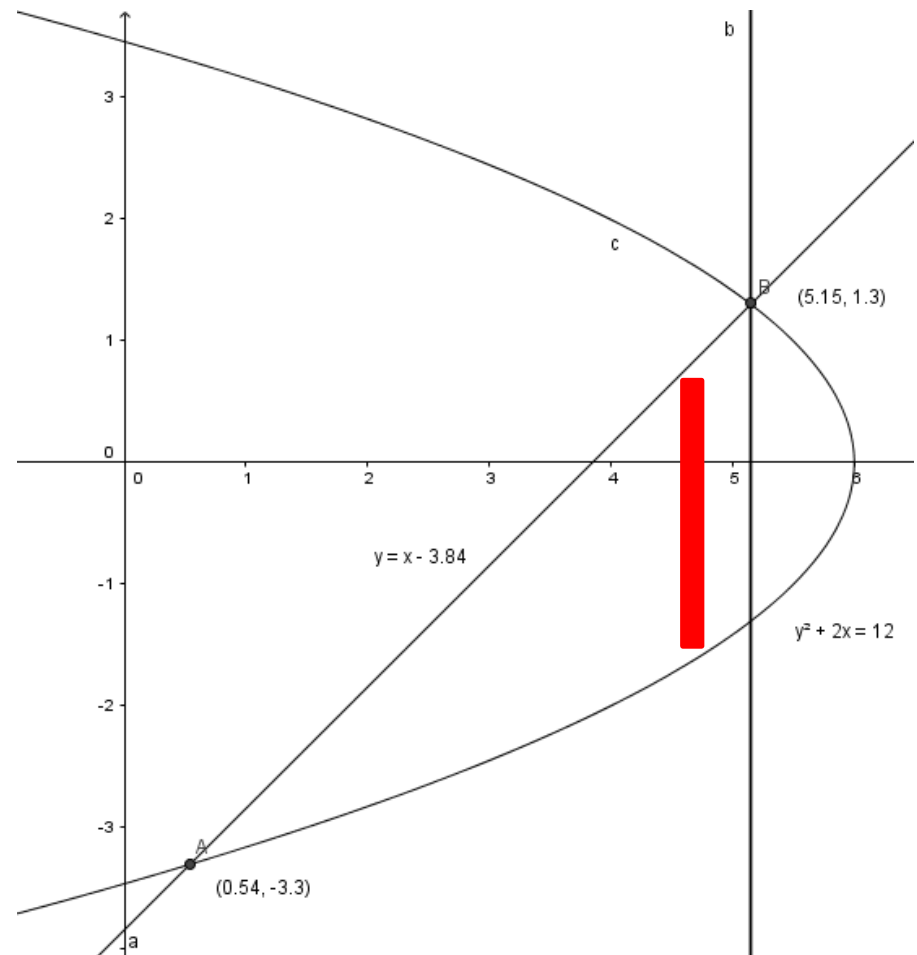
- Panjang poligon $y_1 - y_2$
- Lebar poligon Δx
- Luas poligon = $(y_1 - y_2) \Delta x$
- $$\text{Luas} = \lim_{|P| \rightarrow 0} \sum_{i=1}^n (y_1 - y_2) \Delta x_i$$
- $$\text{Luas} = \int_1^{2.5} (x - (x - 1)) dx$$



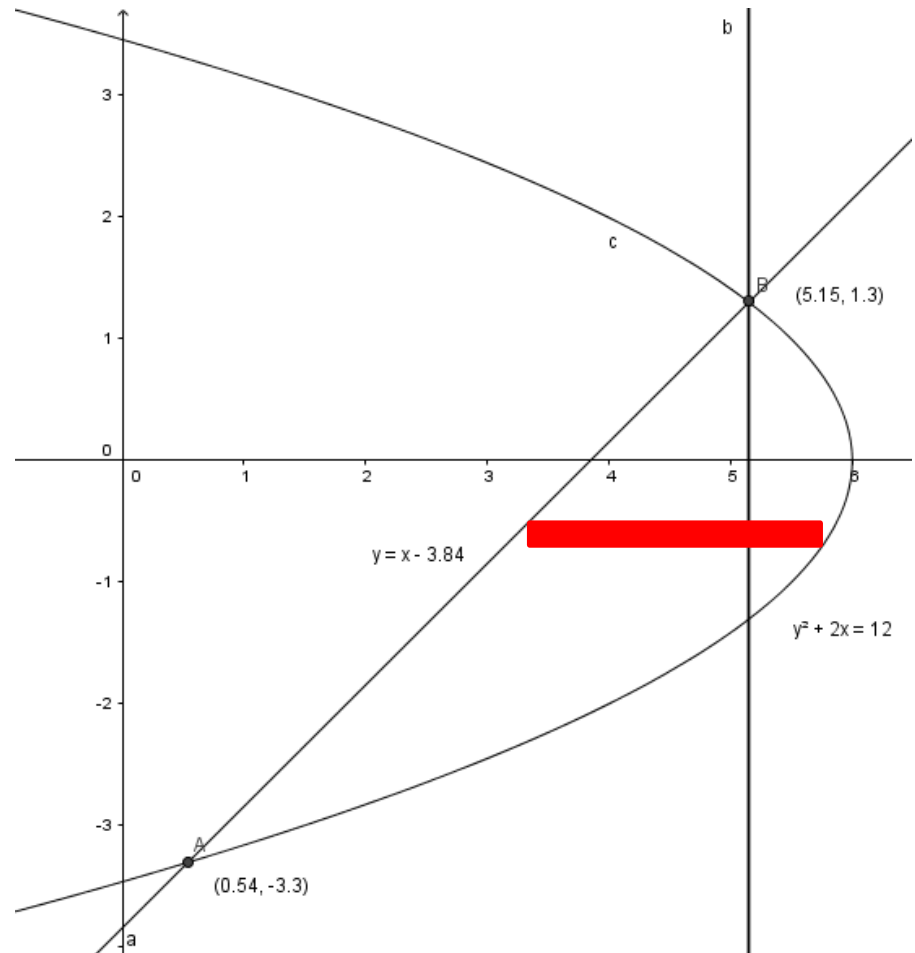
- Panjang poligon - y
- Lebar poligon Δx
- Luas poligon = $-y \Delta x$
- $$\text{Luas} = \lim_{|P| \rightarrow 0} \sum_{i=1}^n -y \Delta x_i$$
- $$\text{Luas} = \int_0^{2.5} -(-x^2) dx$$



- Panjang poligon?
- Lebar poligon Δx
- Luas = ?



- Panjang poligon x
- Lebar poligon Δy
- Luas poligon $= x \Delta y$
- $$\text{Luas} = \lim_{|P| \rightarrow 0} \sum_{i=1}^n x \Delta y_i$$
- $$\text{Luas} = \int_{-3.3}^{1.3} \frac{12-y^2}{2} dy$$



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