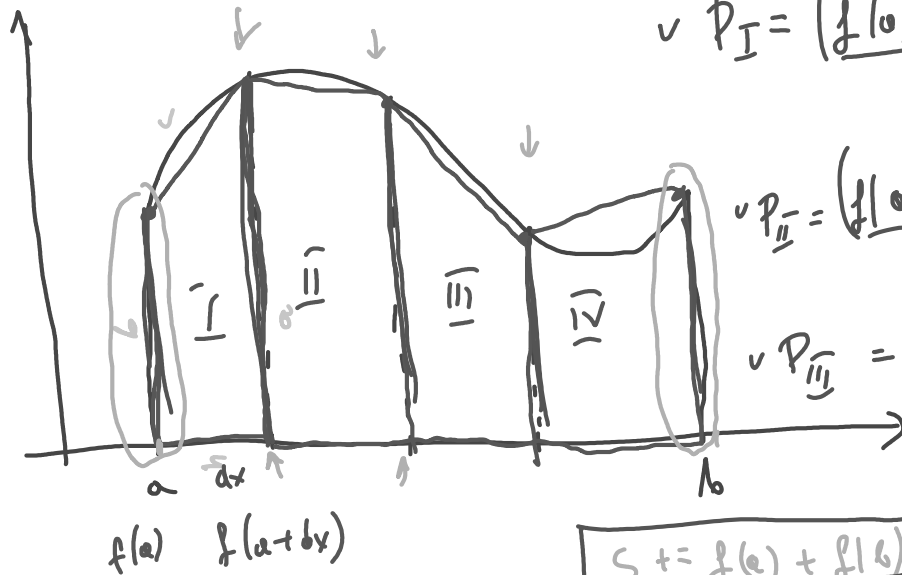


$$f(a+dx) \approx f(a) \quad \quad \quad \Delta x = \frac{a+b}{2} \cdot h \quad \text{for } i \text{ in range } (1, n-1): \quad \frac{(i+1) \cdot dx}{(a+dx+idx)}$$

$$P_I = \frac{(f(a) + f(a+dx))}{2} \cdot dx$$



$$P_{II} = \frac{(f(a+dx) + f(a+2dx))}{2} \cdot dx$$

$$P_{III} = \frac{(f(a+2dx) + f(a+3dx))}{2} \cdot dx$$

$$P_I + P_{II} + P_{III} = \frac{dx}{2} \left(\right.$$

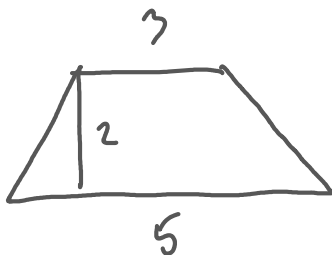
$$S \leftarrow f(a) + f(b)$$

for i in range(1, n-1)

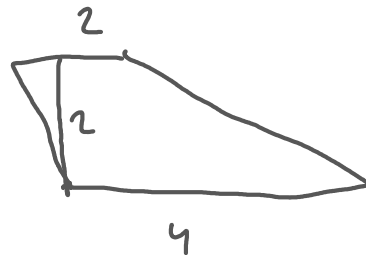
$$S \leftarrow 2 \cdot f(a+idx)$$

$$\text{return } \frac{(S) \cdot dx}{2}$$

1)

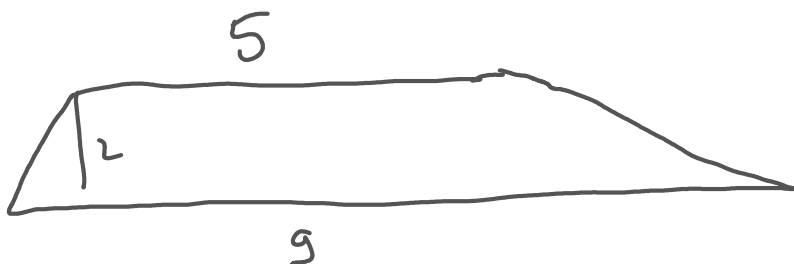


$$P_1 = \frac{5+3}{2} \cdot 2 = 8$$



$$P_2 = \frac{4+2}{2} \cdot 2 = 6$$

2)



$$P_3 = \frac{5+9}{2} \cdot 2 = 14$$