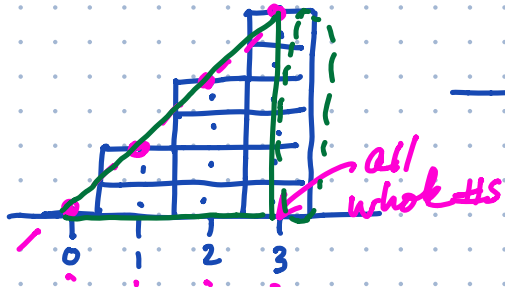


Sums vs Accumulations

Discrete

Continuous

$$0 + 2 + 4 + 6 = 12$$



$$f(k) = 2k$$

$$\sum_{k=0}^3 2k$$

$$= 2 \cdot 0 + 2 \cdot 1 + 2 \cdot 2 + 2 \cdot 3$$

$$= 0 + 2 + 4 + 6$$

$$= 12$$

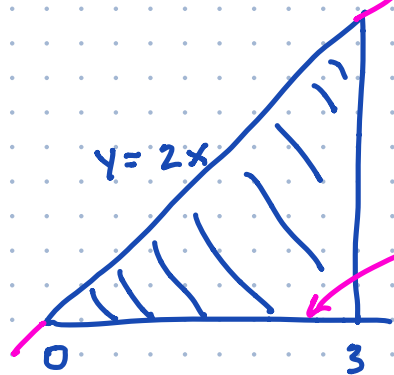
$$\sum_{k=1}^n k = 1 + 2 + 3 + \dots + n$$

$$= n(n+1)/2$$

$$\sum k^2 \dots$$

$$\sum k^3 \dots$$

σ
 Σ sigma



$$f(x) = 2x$$

$$A = \int_0^3 2x \, dx$$

$$= x^2 \Big|_0^3$$

$$= 3^2 - 0^2$$

$$= 9 - 0$$

$$= 9$$