

$$F(x) = \int_{-\infty}^x f(t) dt$$

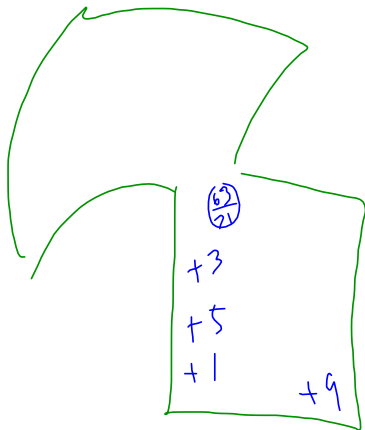
$$= \int_0^x \frac{1}{12} dt \quad \text{if } 0 \leq x \leq 12$$

$$F(x) = 0 \quad \text{if } x < 0$$

$$F(x) = 1 \quad \text{if } x \geq 12$$

$$F(x) = \int_0^x \frac{1}{12} dt$$
$$= \frac{1}{12} t \Big|_0^x = \frac{1}{12} x - \frac{1}{12}(0) = \frac{1}{12} x = \gamma$$

$$\begin{aligned}P(1 \leq X \leq 2) &= \frac{1}{12}(2-1) \\&= \int_1^2 f(x) dx \quad \left( \sum_{2 \leq t \leq 5} f(t) \right) \\&= \int_1^2 \frac{1}{12} dx \\&= \frac{1}{12} \int_1^2 dx \\&= \frac{1}{12} x \Big|_1^2 = \frac{1}{12}(2) - \frac{1}{12}(1)\end{aligned}$$



$$(3)(3)$$