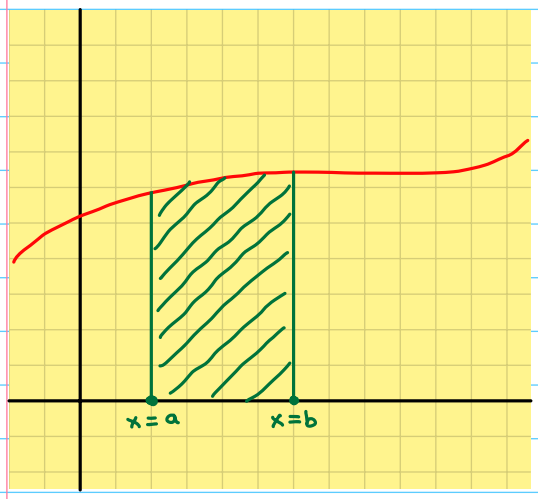
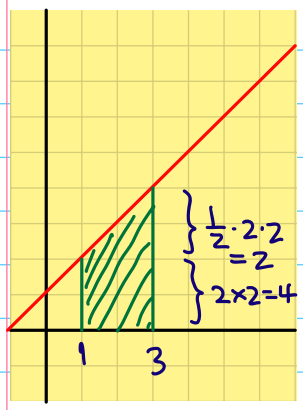


$$A = \int_{x=a}^{x=b} f(x)\,dx$$

upper bound $x = b$

lower bound $x = a$

$f(x) = x + 1$

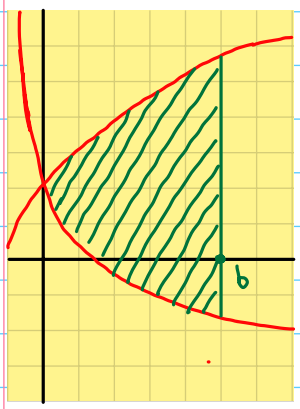


$$A = \int_{1}^{3} (x+1)\,dx$$

$$= \left[\frac{1}{2}x^2 + x\right]_{1}^{3}$$

$$= \left[\frac{9}{2} + 3\right] - \left[\frac{1}{2} + 1\right]$$

$$= 6 \text{ units}^2$$



$$A = \int_{0}^{b} (f(x) - g(x))\,dx$$