

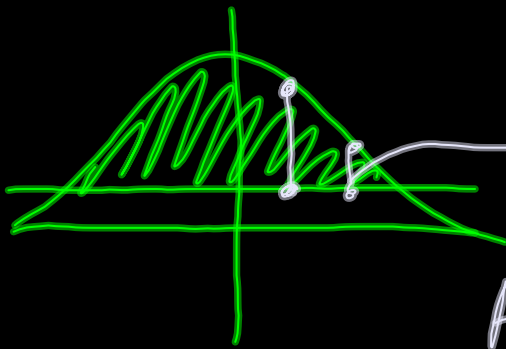
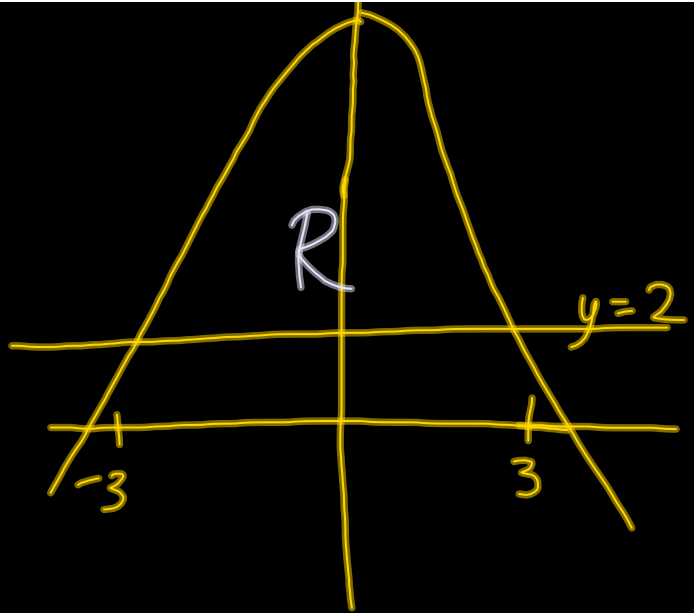
$$\frac{20}{1+x^2} = \frac{2}{1}$$

$$20 = 2(1+x^2)$$

$$10 = 1+x^2$$

$$x = \pm 3$$

$$\int_{-3}^3 \left(\frac{20}{1+x^2} - 2 \right) dx = 37.962$$



$$d = \frac{20}{1+x^2} - 2 \rightarrow r = \frac{10}{1+x^2} - 1$$

$$A \text{ of SC} = \frac{\pi r^2}{2}$$

$$A \text{ of SC} = \frac{\pi}{2} \left(\frac{10}{1+x^2} - 1 \right)^2$$

$$\int_{-3}^3 \frac{\pi}{2} \left(\frac{10}{1+x^2} - 1 \right)^2 dx$$

$$243.324$$