

$$A(x) = \pi (R^2 - r^2)$$

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

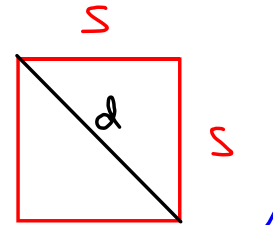
Volume

$$V = \int_a^b A(x) dx$$

$$A(s) = s^2$$

$$d = s\sqrt{2}$$

$$s = \frac{d}{\sqrt{2}}$$



$$A(d) = \left(\frac{d}{\sqrt{2}}\right)^2$$

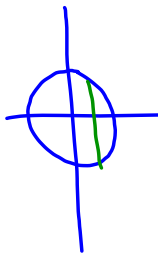
$$= \frac{d^2}{2}$$

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$$x^2 + y^2 = 1 \text{ and}$$

according to (anon) $d = 2y$

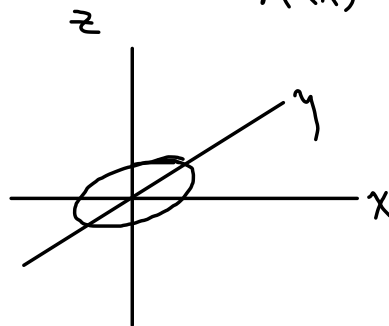
$$y = \sqrt{1-x^2} \quad d = 2\sqrt{1-x^2}$$



Since $A(d) = \frac{d^2}{2}$

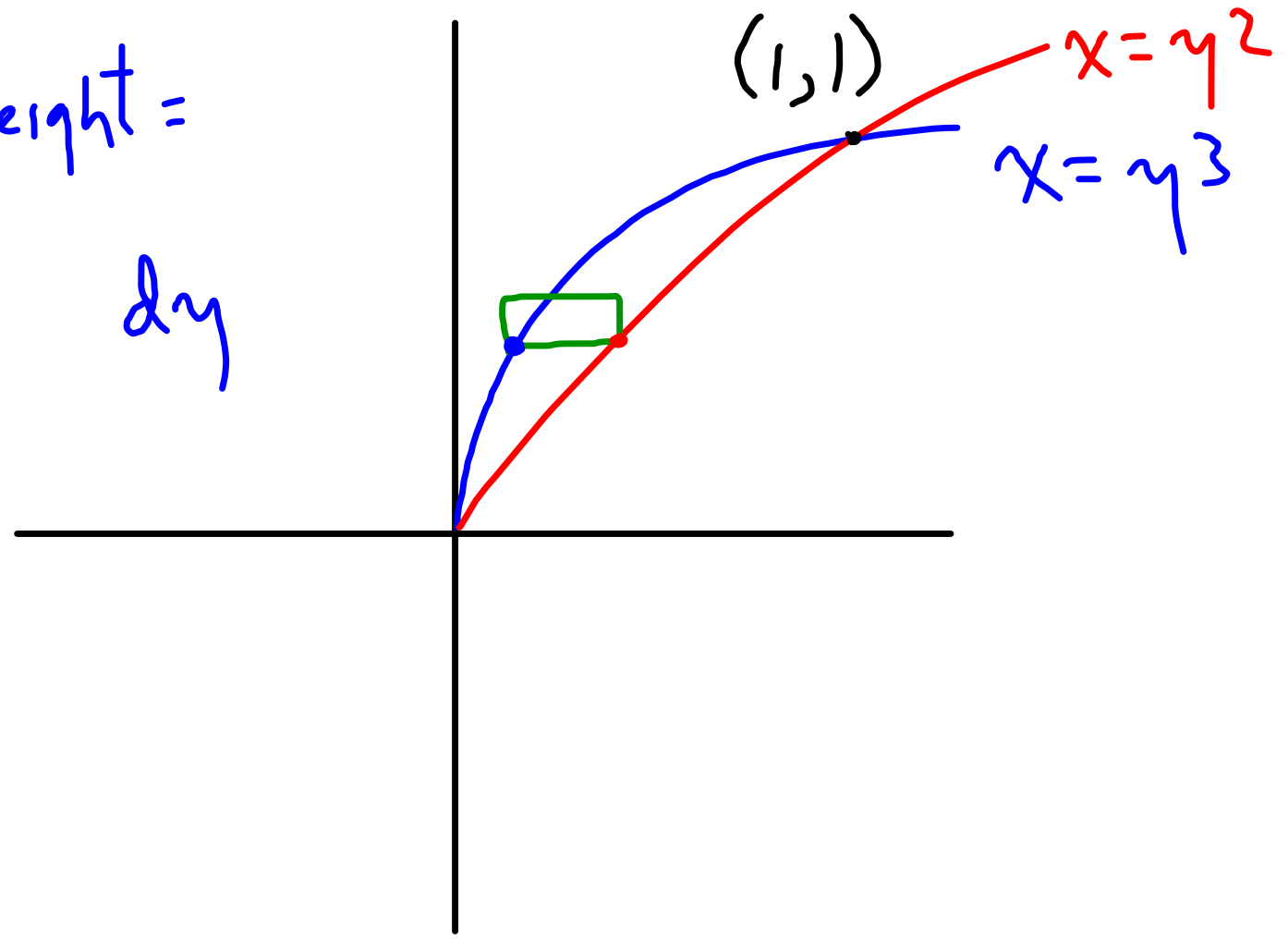
$$A(x) = \frac{(2\sqrt{1-x^2})^2}{2}$$

$$= 2(1-x^2)$$

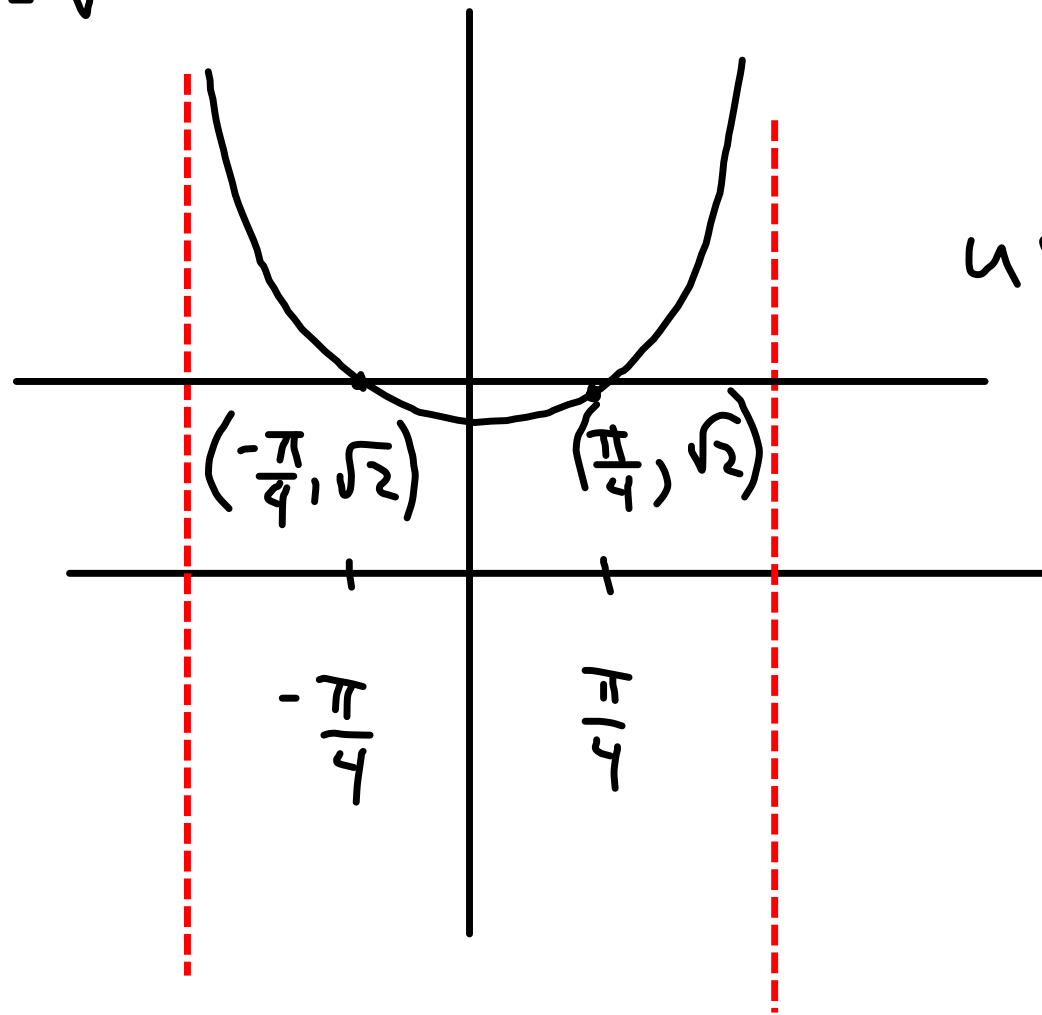


height =

dy



$$A(x) = \sqrt{2} - \sec x$$



use dx