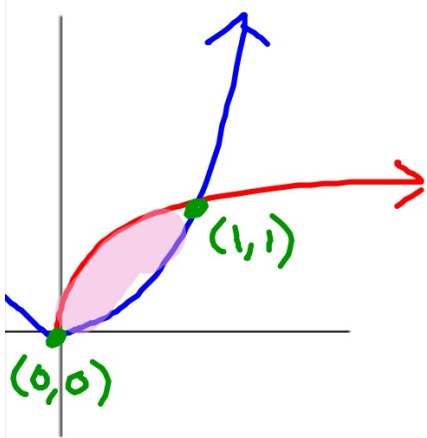


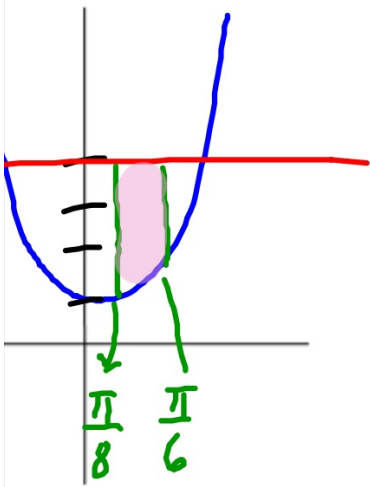
x^2 and $y = \sqrt{x}$



$$\int_0^1 (\sqrt{x} - x^2) dx$$

$$.333 \text{ u}^2$$

$\sec^2 x$, $y = 4$, $x = \pi/8$, and $x = \pi/6$

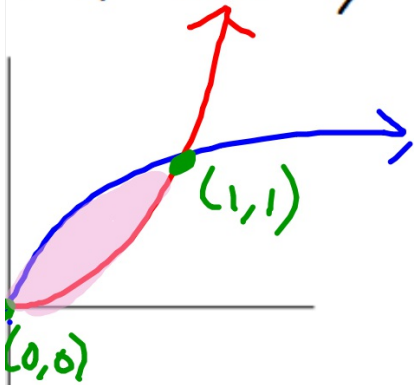


$$\int_{\pi/8}^{\pi/6} (4 - \sec^2(x)) dx$$

$$\int_{\pi/8}^{\pi/6} \left(4 - \left(\frac{1}{\cos(x)^2} \right) \right) dx$$

$$.360 \text{ u}^2$$

$y = x$ and $y = x^2$



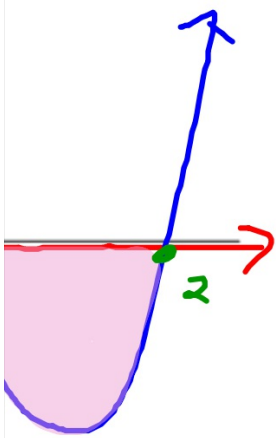
$$y = \sqrt[3]{x}$$

$$x = \pm\sqrt{y}$$

$\frac{T/B}{\int_0^1 (\sqrt[3]{x} - x^2) dx = .4170^2}$

$\frac{R/L}{\int_0^1 (\sqrt{y} - y^3) dy = .4170^2}$

$x^3 - 4x$ and $y = 0$



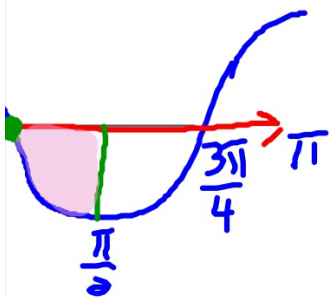
$$\int_{-2}^0 (x^3 - 4x - 0) dx = 4$$

$$\int_0^2 (0 - (x^3 - 4x)) dx$$

$$\int_0^2 (-x^3 + 4x) dx = 4$$

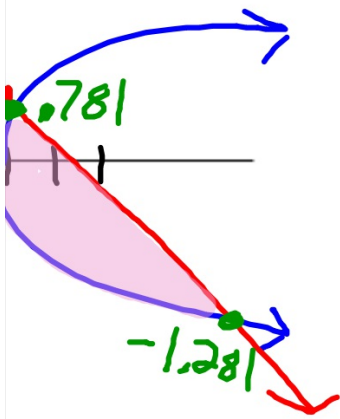
$$\boxed{8 \text{ u}^2}$$

$2x)$, $y=0$, $x=\pi/4$, and $x=\pi/2$



$$\int_{\pi/4}^{\pi/2} (0 - \cos(2x)) dx = \boxed{.50^2}$$

$$x = -2, \quad y = -2x + 6$$

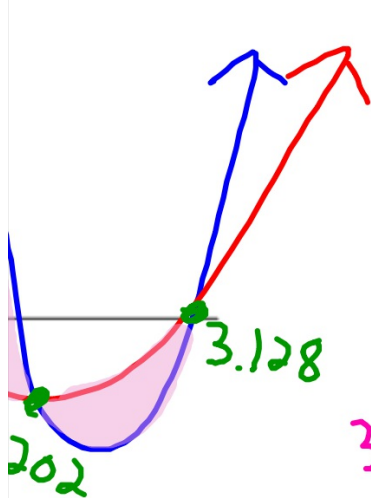


$$\int_{-1.281}^{0.781} \left(\left(-\frac{1}{2}y + 3\right) - (y^2 + 2) \right) dy$$

$$= 1.460 \text{ u}^2$$

$$\begin{array}{l} \hline -2 \quad y = -2x + 6 \\ \hline y - 6 = -2x \\ \hline -\frac{1}{2}y + 3 = x \end{array}$$

$$-2x^2 - 5x + 6 \quad \text{and} \quad y = x^2 - 3x + 1$$



$$\int_{1.202}^{3.128} ((x^3 - 2x^2 - 5x + 6) - (x^2 - 3x + 1)) dx = 8.$$

$$\int_{1.202}^{3.128} ((x^2 - 3x + 1) - (x^3 - 2x^2 - 5x + 6)) dx$$

(12)