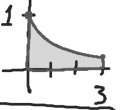


Monday - March 7, 2016

rev: $y=4$

①⑦ $y = \frac{1}{1+x}$

$y=0$ $x=0$ $x=3$



$y = \frac{1}{1+x} - 4$ $y = 0 - 4$

$-\pi \left[\frac{3}{4} - 8 \ln 4 \right]$

~~$\pi \int_0^3 (-4)^2 dx - \pi \int_0^3 \left(\frac{1}{1+x} - 4 \right)^2 dx = -\pi \left[\frac{-1}{x+1} - 8 \ln(x+1) \right]_0^3$~~

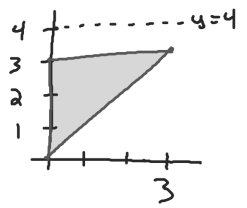
$\left(\frac{1}{1+x} - 4 \right)^2 = \frac{1}{(x+1)^2} - \frac{8}{x+1} + 16 = -\pi \left[\frac{1}{x+1} - 8 \ln 4 \right] - (-1)$

①⑤

$y = x$ $y = 3$ $x = 0$

rev: $y = 4$

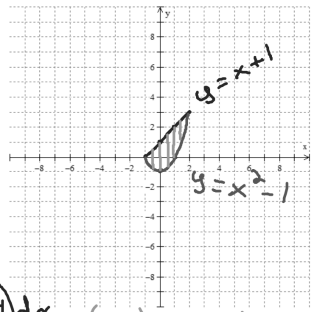
$y = x - 4$ $y = 3 - 4 = -1$



$\pi \int_0^3 (x-4)^2 dx - \pi \int_0^3 (-1)^2 dx$

⑤⑨

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



$\int_{-1}^2 (x^4 - 2x^3 - 3x^2 + 4x + 4) dx$

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