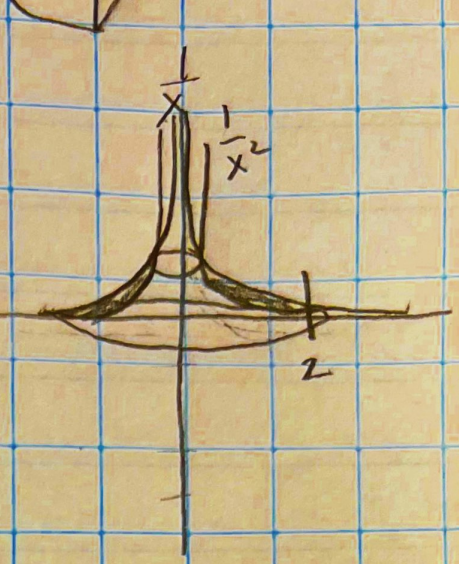
$[1,2]$



b $y = \frac{1}{x}$ $y = \frac{1}{x^2}$ $x = 2$

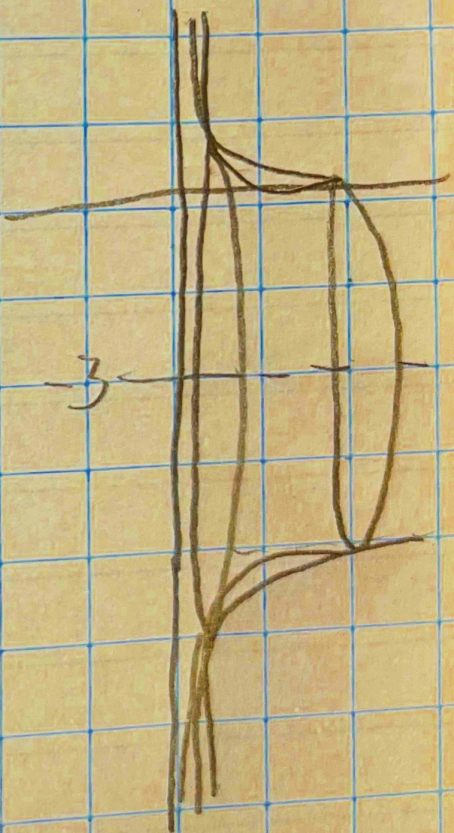
I $2\pi \int_1^2 x\left(\frac{1}{x} - \frac{1}{x^2}\right) dx$

II $x \cdot y = \frac{1}{x} \cdot x$ $x^2 \cdot y = \frac{1}{x^2} \cdot x^2$

$\frac{x}{x} = \frac{1}{y}$ $\frac{x^2}{y} = \frac{1}{y}$

$\sqrt{x^2} = \sqrt{\frac{1}{y}}$

$x = \frac{1}{y}$ $x = \sqrt{\frac{1}{y}}$



$\pi \int \left(\frac{1}{y}\right)^2 - \left(\sqrt{\frac{1}{y}}\right)^2 dy$