908.g.

$$V = \int_{y=0}^{1}\left(\int_{x=y}^{2y}\frac{ydx}{1+x^3}\right)dy + \iint_D \frac{ydxdy}{1+x^3}$$

$$D = \{(x,y): 1 \le y \le x,\ 1 \le x \le 2\}$$

$$V = \int_{x=0}^{2}\left(\int_{y=x/2}^{x}\frac{ydy}{1+x^3}\right)dx = \int_{x=0}^{2}\frac{1}{2}\left.\frac{y^2}{2}\right|_{y=x/2}^{x}\frac{1}{1+x^3}dx$$

$$V = \int_{x=0}^{2}\frac{1}{8}\frac{3x^2}{1+x^3}dx = \frac{1}{8}\left[\ln(1+x^3)\right]_{x=0}^{2} = \frac{1}{8}\ln 9 = \frac{1}{4}\ln 3$$