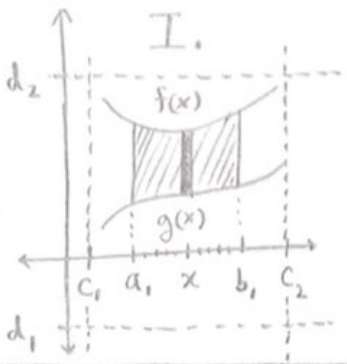
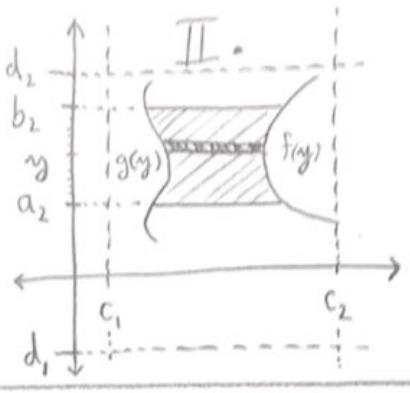
Volume V

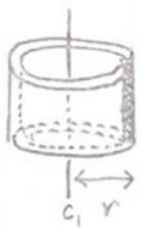
Region Type:





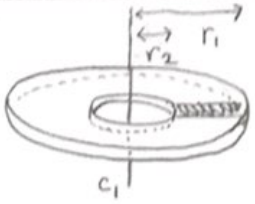
Revolve around line:

$x = c_1$



$$\int_{a_1}^{b_1} 2\pi (x - c_1)(f(x) - g(x))\,dx$$

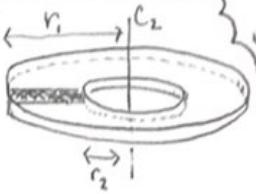
$$\int_{a_1}^{b_1} 2\pi r (f - g)\,dx$$



$$\int_{a_2}^{b_2} \pi\left((f(y) - c_1)^2 - (g(y) - c_1)^2\right) dy$$

$x = c_2$

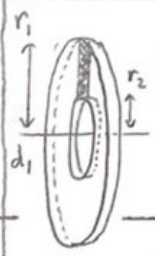
$$\int_{a_1}^{b_1} 2\pi (c_2 - x)(f(x) - g(x))\,dx$$



$$\int_{a_2}^{b_2} \pi\left((c_2 - g(y))^2 - (c_2 - f(y))^2\right) dy$$

$$\int_{a_2}^{b_2} \pi (r_1^2 - r_2^2)\,dy$$

$y = d_1$



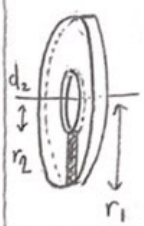
$$\int_{a_1}^{b_1} \pi\left((f(x) - d_1)^2 - (g(x) - d_1)^2\right) dx$$

$$\int_{a_1}^{b_1} \pi (r_1^2 - r_2^2)\,dx$$

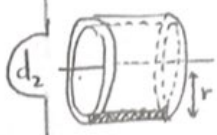
$$\int_{a_2}^{b_2} 2\pi (y - d_1)(f(y) - g(y))\,dy$$

$$\int_{a_2}^{b_2} 2\pi r (f - g)\,dy$$

$y = d_2$



$$\int_{a_1}^{b_1} \pi\left((d_2 - g(x))^2 - (d_2 - f(x))^2\right) dx$$



$$\int_{a_2}^{b_2} 2\pi (d_2 - y)(f(y) - g(y))\,dy$$

Area A

$$\int_{a_1}^{b_1} (f(x) - g(x))\,dx$$

$$\int_{a_2}^{b_2} (f(y) - g(y))\,dy$$