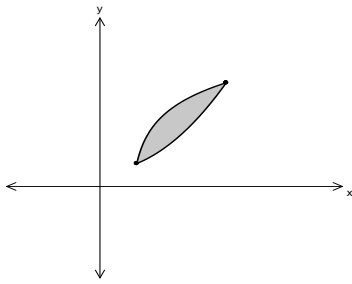


Assume the intersection points are (a,c) and (b,d)

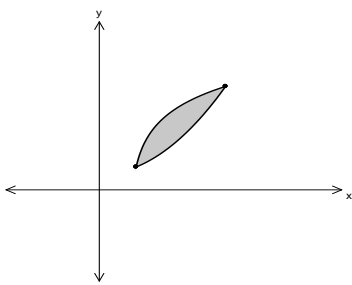
a.



Rotate about the  $x$ -axis

$$\pi \int_a^b f(x)^2 - g(x)^2 dx$$

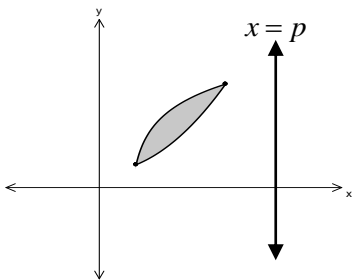
b.



Rotate about the  $y$ -axis

$$\pi \int_c^d g(y)^2 - f(y)^2 dy$$

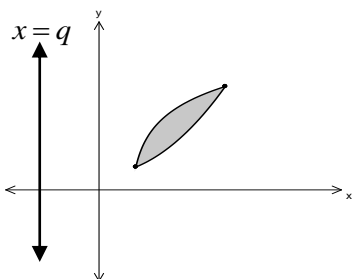
c.



Rotate about  $x = p$

$$\pi \int_c^d [p - f(y)]^2 - [p - g(y)]^2 dy$$

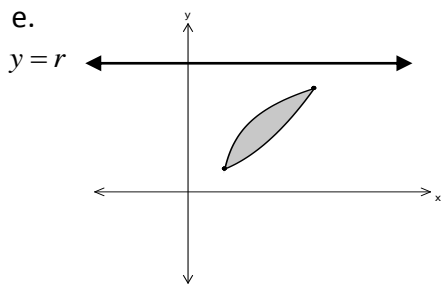
d.



Rotate about  $x = q$

$$\pi \int_c^d [g(y) - q]^2 - [f(y) - q]^2 dy$$

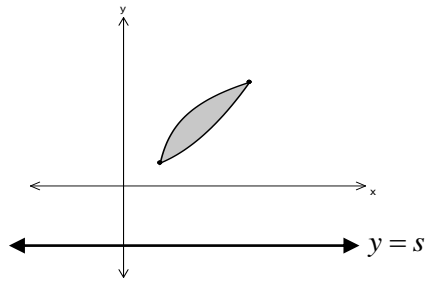
e.



Rotate about  $y = r$

$$\pi \int_a^b [r - g(x)]^2 - [r - f(x)]^2 dx$$

f.



Rotate about  $y = s$

$$\pi \int_a^b [f(x) - s]^2 - [g(x) - s]^2 dx$$