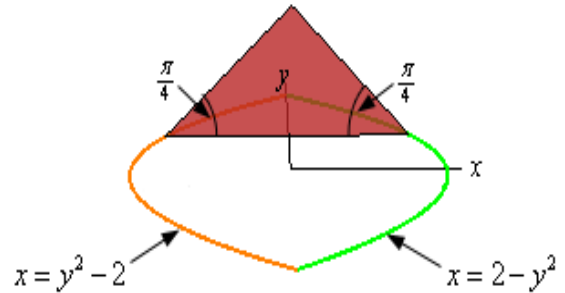


Volumes Using Cross Sections (6.2)

$$V = \int_a^b A(x) dx \quad \text{or} \quad V = \int_c^d A(y) dy$$

Finding Volumes Using Cross Sections: *Find the volume.*

- 1) Find the volume of the solid whose base is the region bounded by $x = 2 - y^2$ and $x = y^2 - 2$ and whose cross-sections are isosceles triangles with the base perpendicular to the y -axis and the angle between the base and the two sides of equal length is $\pi/4$.



- 2) Find the volume between $f(x) = e^x$ and $g(x) = \ln|x+2| + 2$, with square cross-sectional shapes that are perpendicular to the x -axis.