

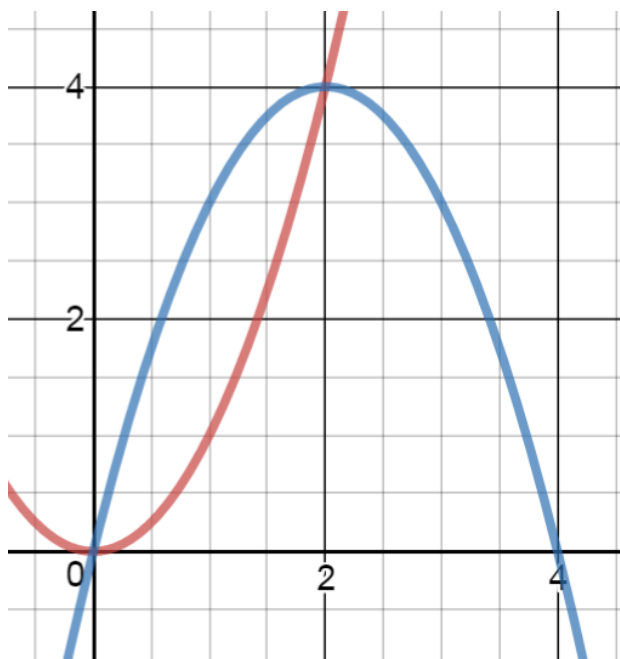
## 6.2 Cont. - Last Topic!!

Find the volume of a solid whose base is bounded by...

$$y = x^2$$

$$y = 4x - x^2$$

With cross sections that are rectangles with a height double that of its base  
(  $A = B \cdot H$  ;  $H = 2B$  )... The cross sections are perpendicular to the x-axis

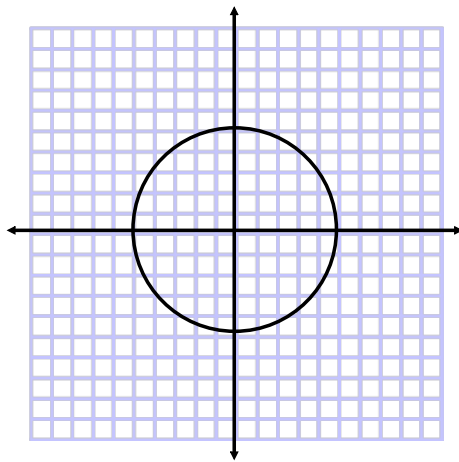


Volumes of Solids with a given cross section

With volumes of rotation your cross sections are circles

Based on  $A = \pi r^2$

Let's try the Base of the solid  $x^2 + y^2 = 4$   
 where the cross sections are squares that are  
 perpendicular to the x axis.



Ex: Base bounded by...

$$f(x) = 1 - (1/2)x$$

$$g(x) = -1 + (1/2)x$$

$$x=0$$

cross sections are equilateral triangles, perpendicular to  
 the x axis.

