

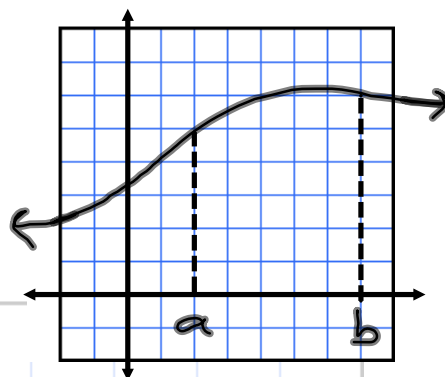
# Calculus AB

7-2

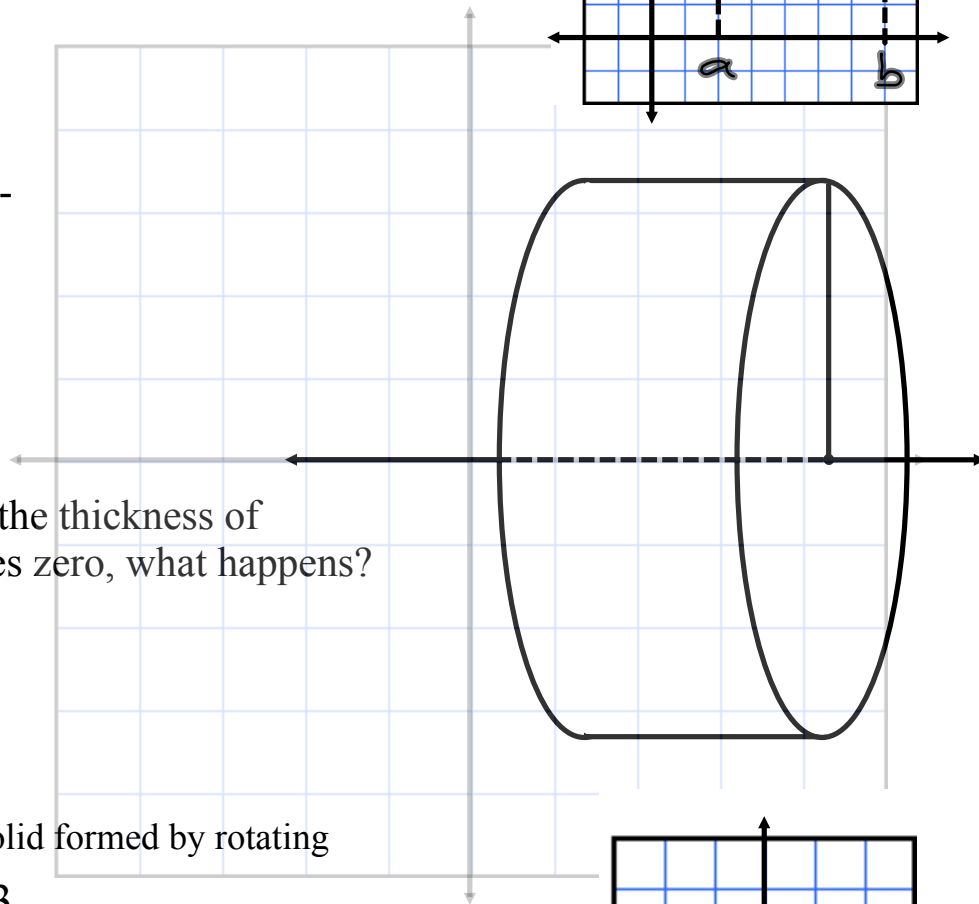
## Volumes of Rotation: The Disk Method

How does the integral shown find the area of the figure?

$$\int_a^b f(x) dx$$



Volume of a Cylinder -

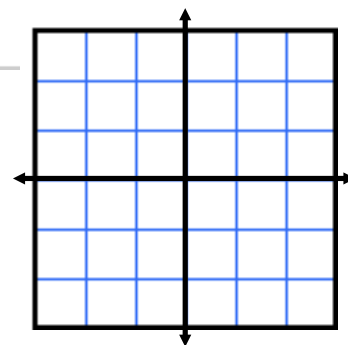


If we find the limit as the thickness of the cylinder approaches zero, what happens?

Find the volume of the solid formed by rotating

$$y = -\frac{2}{3}x + 3$$

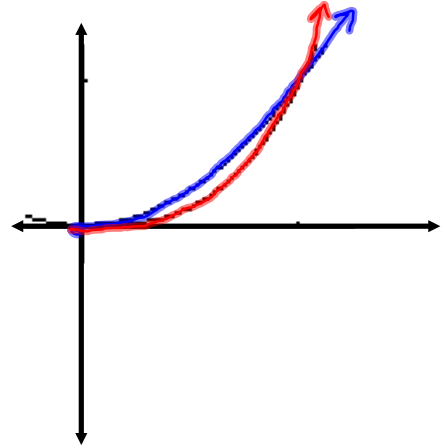
about the x-axis from  $x = 0$  to  $x = 3$



Set up and evaluate the integral that gives the volume of the solid formed by revolving the region about the  $x$  - axis.

\*)  $y = x^2$  \*

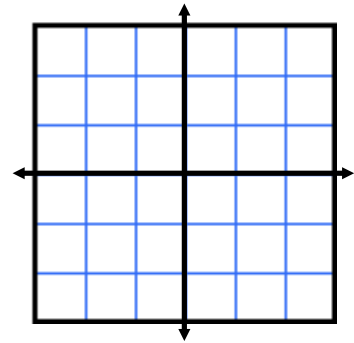
$y = x^3$  \*



Find the volume of the solid formed by rotating

$$y = -\frac{2}{3}x + 3$$

about the  $x$ -axis from  $x = 0$  to  $x = 3$



Assignment: pg 465 1-17 odd
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