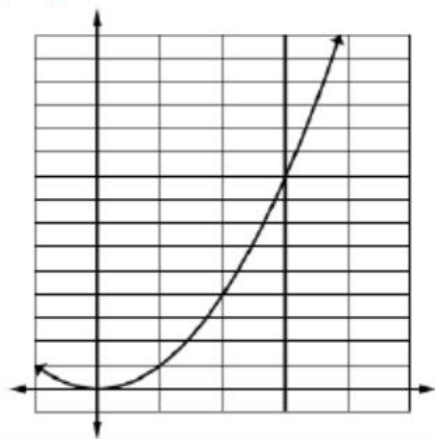


Calculus
Volume of a Solid by Cross Sections A

1. Consider the space bounded by $y = x^2$, the line $x = 3$, and the x -axis. Suppose a three dimensional solid is made by making cross sections **perpendicular to the x -axis**.



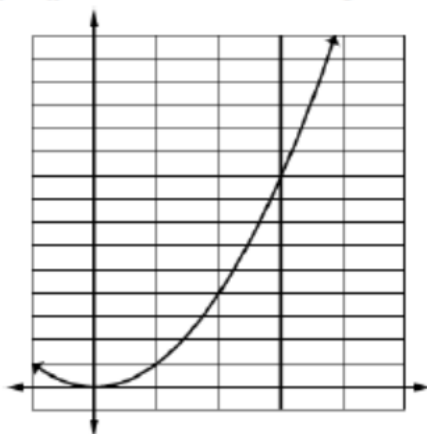
- A. What will the volume of the shape be if the cross sections are squares?

- B. What will the volume of the shape be if the cross sections are semi-circles?

- C. What will the volume of the shape be if the cross sections are equilateral triangles?

Calculus
Volume of a Solid by Cross Sections B

1. Consider the space bounded by $y = x^2$, the line $x = 3$, and the x -axis. Suppose a three dimensional solid is made by making cross sections **perpendicular to the y -axis**.



- A. What will the volume of the shape be if the cross sections are squares?

- B. What will the volume of the shape be if the cross sections are semi-circles?

- C. What will the volume of the shape be if the cross sections are isosceles right triangles (the leg of the right triangle stretches across the base of the shape)?