

AP Calculus Area and Volume Video Review

Find the area bounded by each curve.

1. $y = \sqrt[3]{x}$ and $y = \sqrt{x}$

2. $y = \sqrt[3]{x - 3}$ and $y = 13 - x$

3. $x = 2y^2 - 2y$ and $x = 12y^2 - 12y^3$

Find the volume of the solid bounded by:

4. $y = x^2$, $y = 0$ and $x = 2$ revolved about the x-axis.

5. $y = 2x - x^2$ and $y = x$ about $y = 1$.

6. $y = \frac{x^2}{4}$ and $y = 1$ about the line $y = 2$.

7. $y = 4 - x^2$ and $y = 0$ about the line $y = -3$

8. $y = 2\sqrt{x-1}$ and $y = x - 1$ about the line $x = -1$