

1. (2ea) *Set-up* an integral which represents the volume of the solid resulting from rotating the area bounded by the graph of $y = 4x^2$, the x -axis, y -axis, and $x = 1$ around the given line.

(a) x -axis

(b) $x = -1$

(c) $x = 1$

(d) $y = 8$

2. (6) Find the volume of the solid obtained by rotating the region bounded by $y = 2\sqrt{x}$ and $y = \frac{1}{2}x$ about the x -axis.

3. (6) Find the volume of the solid obtained by rotating the region bounded by $y = 2\sqrt{x}$ and $y = \frac{1}{2}x$ about the line $y = 10$.