

1. Set up, but do not evaluate, an integral for the volume of the solid obtained by rotating the region bounded by the curves $y = \sqrt{x}$, $y = 2x$ about the specified axis.

(i) about x-axis

Washer:

Cylindrical Shell:

(ii) about y-axis;

Washer:

Cylindrical Shell:

(iii) about $y = -2$

Washer:

Cylindrical Shell:

(iv) about $x = 2$

Washer:

Cylindrical Shell: