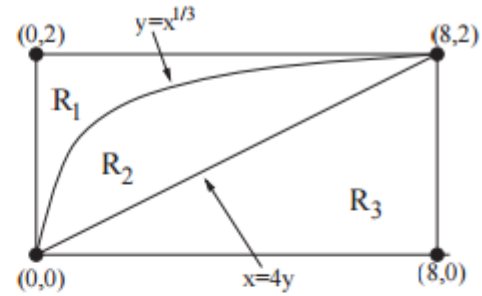


GW II

MATH 162

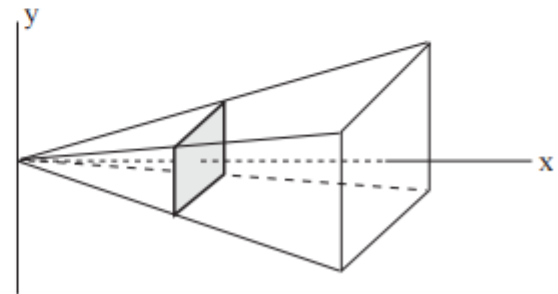
1. Consider the figure given to the right. For each of the following, set up, but do not evaluate, an integral that represents the volume obtained when the specified region is rotated around the given axis.



- (a) R_1 about the y -axis.
 (b) R_2 about the x -axis.
 (c) R_2 about the y -axis.

- (d) R_2 about the line $x = 9$.
 (e) R_3 about the line $y = 3$.

2. Find the volume of a pyramid whose base is a square with side L and whose height is h . This solid region is pictured (on its side) to the right. Notice that a suggestive slice has been drawn in for you.



3. Repeat question 1, except this time each figure is rotated about the line

- (a) $x = -2$ (b) $x = 15$ (c) $y = -5$ (d) $y = 7$