1. Page 301: # 4, 6(a).

2. The base of a solid $S$ lies in the region $B$ between $y = x^2$ and $y = x + 2$ in the $xy$-plane as shown below. Plane sections perpendicular to the $x$-axis are squares with one side in the $xy$-plane. Find the volume of $S$.


4. Page 321: # 1(b)(d), 5, 7, 11 (just set this up as an iterated integral).

5. Let $S$ be the solid in the first octant bounded above by the plane

$$\frac{x}{a} + \frac{y}{b} + \frac{z}{c} = 1, \quad (a, b, c > 0).$$

Show that the volume $V$ of $S$ is given by $V = \frac{abc}{6}$.

6. Page 326: # 2(c).