Problem 1: Find the volume of the region bounded by the planes $z = 3y$, $z = y$, $y = 1$, $x = 1$, and $x = 2$.

Problem 2: Find the volume of the pyramid with base in the plane $z = -6$ and sides formed by the three planes $y = 0$ and $y - x = 4$ and $2x + y + z = 4$.

Problem 3: Find the mass of a triangular-shaped solid bounded by the planes $z = 1+x$, $z = 1-x$, $z = 0$, and with $0 \leq y \leq 3$. The density is $\delta(x, y, z) = 10-z$ in units of grams per cubic centimeters, and x, y, z are in centimeters.