

Calculus III

Homework on Lecture 14

1. Set up an integral of the given function over the given region in space. Integrate.

(a) $f(x, y, z) = x + y + z$, over the region \mathbb{R}^3 bounded by $x + 2y + z = 2$, $x = 2y$, $x = 0$, $z = 0$.

(b) $f(x, y, z) = x + y + z$, over the region \mathbb{R}^3 bounded by $x + 3y + z = 2$, $x = 3y$, $x = 0$, $z = 0$.