Math 225: Calculus III　　　　　　Name:＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Quiz 10　　*Apr. 22/24, 1997*　　　　Section:＿＿＿＿＿＿＿＿＿＿＿＿＿＿

1. Let Σ be the portion of the surface defined by $x^2 + y + z = 4$ that lies in the first octant. Express the surface area of Σ as an iterated integral in the variables y and z. (Do not evaluate the integral.)

2. Let Σ be the portion of the plane $3x + 2y + z = 6$ that lies in the first octant. Compute the surface integral $\int_\Sigma (x + 2y + z)d\sigma$.