Name: _____ I.D. # _____ Sr. # ____

1. Find the average value of $f(x) = x \cosh x$ on $[0,1]$.

2. Using the method of cylindrical shells, find the volume of the solid generated by rotating the region bounded by $x = y^2 + 1$, $x = 2$, and $y = 0$ about $y = -1$.