

# Math 10860, Honors Calculus 2

Quiz 3, Thursday February 6

**Name:**

1. (a) Give a clear & correct statement (including all hypotheses) of the fundamental theorem of calculus, part 1.

(b) Give a clear & correct statement (including all hypotheses) of the fundamental theorem of calculus, part 2.

2. Determine directly (without comparison to other, known, integrals) whether the improper integral  $\int_0^{\infty} \frac{dx}{\sqrt{x+1}}$  exists. (You may use FTOC if you wish.)