

Quiz 8 — 11/02/17

Name: _____ Section and/or TA: _____

Answer all questions in a clear and concise manner. Unsupported answers will receive *no credit*.

1. (2 points) Find the integral that gives the arc length of the curve $f(x) = \ln(1 - x)$ for $-10 \leq x \leq -5$. **Do NOT evaluate the integral.**
2. (1 point) Find the arc length of the curve $y = x + 1$ for $0 \leq x \leq 4$.
3. (2 points) Find the integral that gives the surface area when the curve $f(x) = \frac{1}{x}$, $1 \leq x \leq 5$ is rotated about the x -axis. **Do NOT evaluate the integral.**