

Name _____

You have 15 minutes for this quiz – no calculators allowed.

1. (3 points each) Evaluate the following definite and indefinite integrals.

(a) $\int_0^1 \frac{12}{4x+3} dx$

(b) $\int \sin(2x) \cos^4(2x) dx$

2. (2 points each) Set up, but do not evaluate, definite integrals which represent the given quantities. Use proper notation.

(a) The area of the region bounded by the x -axis and the graph of $y = 3e^{2x}$ on the interval $[0, 1]$.

(b) The area of the first quadrant region bounded by the x -axis, the y -axis, the line $y = 3$ and the graph of $y = \ln x$.