Math 128
Quiz 5 – November 20, 2008

Name _____

Correct answers without work are worth no credit!

1. Let X be a random variable having outcomes on $[0, \infty)$, with cumulative probability distribution

$$F(x) = 1 - e^{-2x}.$$

What is the probability density function for X?

2. Let Y be the random variable with outcomes on $[0, 2]$ whose probability density function is graphed here:
(hand-drawn graph was lower on left-side of 1, bigger on right side of 1.)

Which is more likely (has higher probability): that $Y > 1$, or that $Y < 1$? Why?