Quiz 13

Name: _____

1. Find the area between the x-axis and the graph of $y = \dfrac{1}{x^2}$ between $x = 1$ and $x = 2$.

   the area is

   $$\int_1^2 \frac{1}{x^2}\,dx = \left.\frac{-1}{x}\right|_1^2 = \frac{-1}{2} - \frac{-1}{1} = 1 - \frac{1}{2} = \frac{1}{2}.$$

2. Explain, in your own words, what "density" is.

   Density is a measure of how clumped something is. A large density means high amount of clumping, and a smaller density means less clumping and more spread out stuff. This can apply to many concepts; mass density, population density, nucleotide density along a DNA strand, and the list goes on.