MATH 1920, Fall 2018

Name:_____

Section:_____

Quiz 4

1. Compute the length of the curve $\mathbf{r}(t) = \langle 2t,\ ln(t),\ t^2 \rangle$ over the interval $1 \leq t \leq 4$: (9 pts.)

2. Which of the following best describes the content of todays workshop? (1pt.)

   (a) We will model a mountain as a graph of two variables $z = f(x, y)$. We will study the level sets to determine good options for hiking trails.

   (b) We are given a function $T(x, y, z)$ that describes the temperature at various locations on a mountain. Then, we sketch and study its isotherms.

   (c) We will model a mountain as a graph of two variables $z = f(x, y)$. Our goal is to approximate the surface area of the mountain.

   (d) We will be given a contour map that describes the atmospheric pressure over a mountain. We will use this to determine the locations where the atmospheric pressure increases most rapidly.