Full name: _____ **GT ID:**_____ **Sec:**___

Quiz 9 Version A

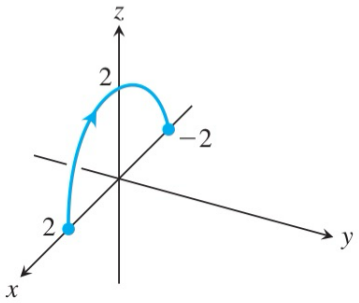
You have 15 minutes to take the quiz. No phones, notes, or use aids of any kind is permitted.

1. (4 points) **[Parameterizations of Curves and Line Integrals]** *True or False.*

   (a) If C_1 and C_2 are two curves with the same starting point and ending point, then $\int_{C_1} f(x,y)\,ds = \int_{C_2} f(x,y)\,ds$. [A]

   ◯ **TRUE** ◯ **FALSE**

   (b) Find a parameterization for space curve C which is the the half circle in the xz-plane with $z \geq 0$ shown in the image. [AN]



2. (6 points) **[Line Integrals of Scalar Functions]**
   Evaluate the line integral where C is the line segment from $(0,0,0)$ to $(2,2,2)$ shown below. [AJN]

$$A = \int_C \sqrt{x+2y+z}\,ds, \quad C:\ \mathbf{r}(t) = \langle t,t,t\rangle, t \in [0,2].$$