QUIZ #1: MATH 301-06 Feb 8, 2018

Exercise: (a) Find the length of the curve traced by

$$r(t) = \mathbf{i}\frac{t^2}{2} + \mathbf{j}\cos t + \mathbf{k}\sin t, \ 0 \le t \le \pi$$

(b) Find the equation of the tangent to the curve at the point corresponding to $t = \frac{\pi}{2}$.