1. Which of the following are true regarding $s$, the arc length parameter?
a) $s=\int\left|\alpha^{\prime}(t)\right| \mathrm{d} t$
b) $s=\int$ speed $\mathrm{d} t$
c) a closed form solution for $s$ may not exist, even for regular curves
d) exactly 2 of the above are true
e) all of a), b) and c) are true
