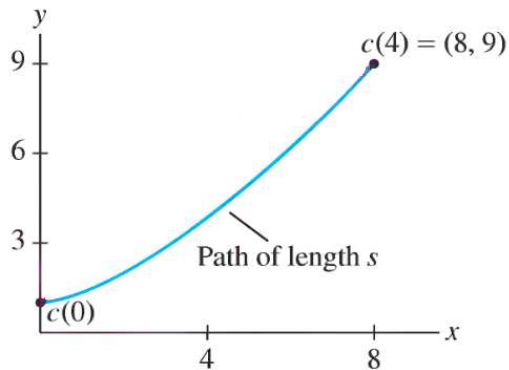


YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. A moving particle travels along the path $\begin{cases} x = 2t \\ y = 1 + \sqrt{t^3} \end{cases}$. Find the distance s traveled during the interval $0 \leq t \leq 4$.



2. Find the area of the region inside the circle $r = 2 \cos \theta$ and outside the circle $r = 1$.

