

# Arc length and Curvature



## Question

Suppose we have 3 curves with parametrizations  $\vec{r}_1(t)$ ,  $\vec{r}_2(t)$ , and  $\vec{r}_3(t)$  with speed functions whose graphs are shown in the figure. Which curve has the greatest length?

- A. Curve 1
- B. Curve 2
- C. Curve 3
- D. Not enough information to decide

