

Answer key available on https://egunawan.github.io/spring18/notes/LA10_2part1key.pdf.

1. Consider the parametric curve Γ :

$$\begin{aligned}x &= t^2 \\y &= t^3 - 3t\end{aligned}$$

- a. Find the points on Γ where the tangent is horizontal or vertical.

- b. Determine where Γ is concave up and downward.

c. Find the area of the region bounded by Γ and the x -axis. To be more specific, find the area of the region bounded (above) by Γ and bounded (below) by the x -axis.

Perform a reality check (with or without a graphing tool).