

1. Let

$$\gamma(t) = (t, t^2), \quad 0 \leq t \leq 1,$$

$$\eta(t) = (2t + 1, t^3 + 4t + 1), \quad 0 \leq t \leq 1,$$

Note that $\gamma(1)$ and $\eta(0)$ intersect at $(1, 1)$.

- Program to draw $\gamma(t)$ and $\eta(t)$.
- Do $\gamma(t)$ and $\eta(t)$ meet with C^1 continuity at the intersection?
- Do $\gamma(t)$ and $\eta(t)$ meet with G^1 continuity at the intersection?

2. Let $t_0 = 0, t_1 = 1, t_2 = 3, t_3 = 4, t_4 = 5$. Using these values, compute $B_{0,4}$ and each of the functions used in its definition. Then plot these functions on the interval $-3 \leq t \leq 8$.

Submission:

1. Source code.
2. Report your answer.

All above files should be named as “**Name_StudentNo_AssignmentNo.zip**”

Please upload your files in Canvas.

Attention: Late submission will be scored less grade.