

MATH 5105 Differential and Integral Analysis
Assignment 2

1. Assume γ is continuous on $[c, d]$ and differentiable on (c, d) .
 - (a) If γ is non-decreasing (monotone increasing) is it true that $\gamma' \geq 0$? (Either prove your answer or give a counterexample).
 - (b) If γ is strictly increasing, is it true that $\gamma' > 0$? Either give a counterexample and show where the proof of (a) fails or prove your statement.

(4 marks)