

Quiz 14 — MA161 — October 24, 2018

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Suppose $f(x) = \sqrt{3}\sin x + \cos x$.

1. (2 points) Find $f'(x)$.
2. (10 points) Find all the critical numbers of $f(x)$ in the interval $[0, \pi]$.
3. (6 points) Evaluate $f(x)$ at $x = 0$, $x = \pi$, and at every critical number you found in part 2.
4. (2 points) Give the maximum and minimum values of $f(x)$ on the interval $[0, \pi]$.