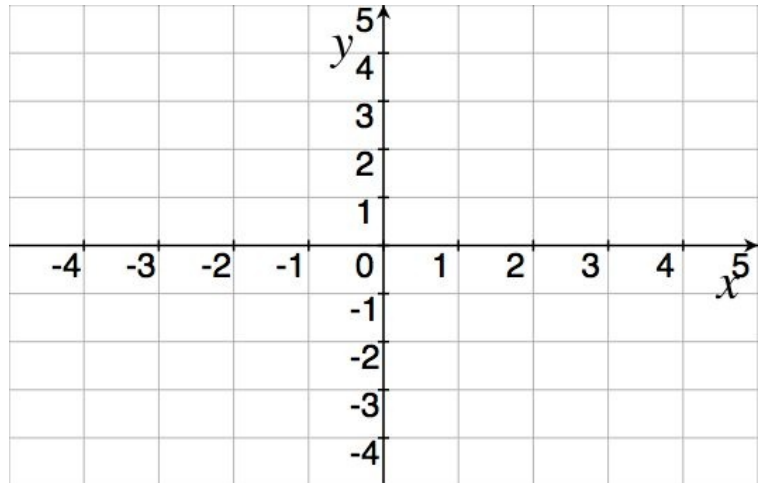


TMATH 124: Concept Check Day 16

Be sure to write down your ideas (numerically, algebraically, or geometrically) so that you can earn credit for your work!! To earn full marks for this you must attempt all problems.

1. Sketch the graph of a function α that satisfies *all* of the following.

- (a) $\alpha'(x) < 0$ when $0 \leq x \leq 4$
- (b) $\alpha''(x) > 0$ when $0 < x$
- (c) $\alpha'(-2) = 0$



2. If a lake's water level was measured at -3 feet at time 0 and it the stream that feeds the lake is known to have a maximum effect/rate of 5ft per day on the lake's water levels, what is the maximum level the lake water height could be at after 2 days?