AUTHOR 1 ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ ☐

AUTHOR 2 ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ ☐

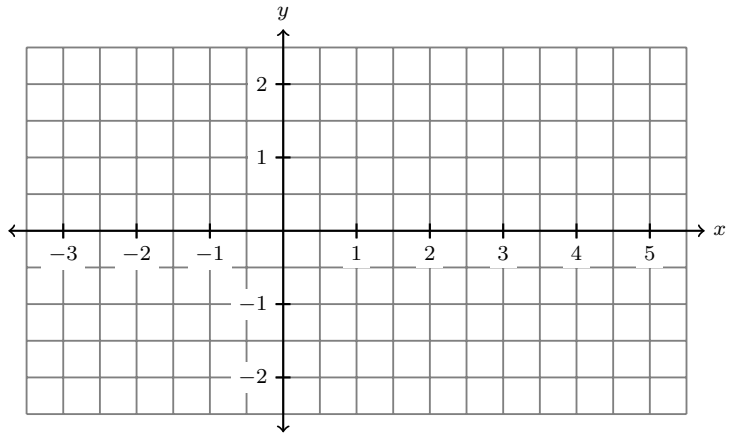AUTHOR 3 ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ ☐

AUTHOR 4 ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ ☐

Worksheet 16

1. For each part, draw (if possible) the graph of a function f that has the given properties:
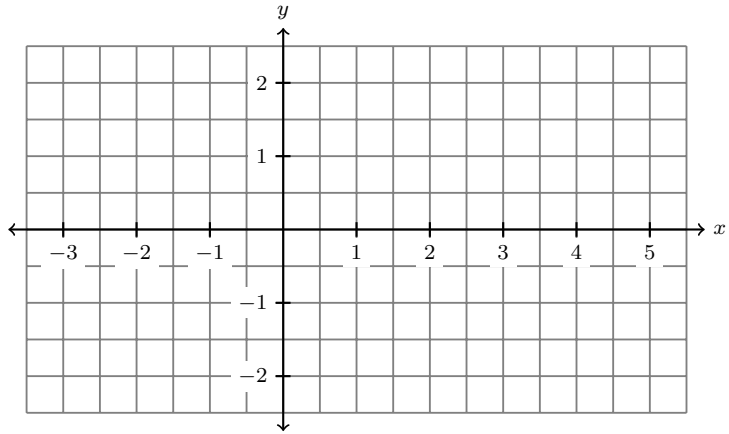
(a)

- f is continuous on $[-2, 4]$
- f is differentiable on $(-2, 4)$
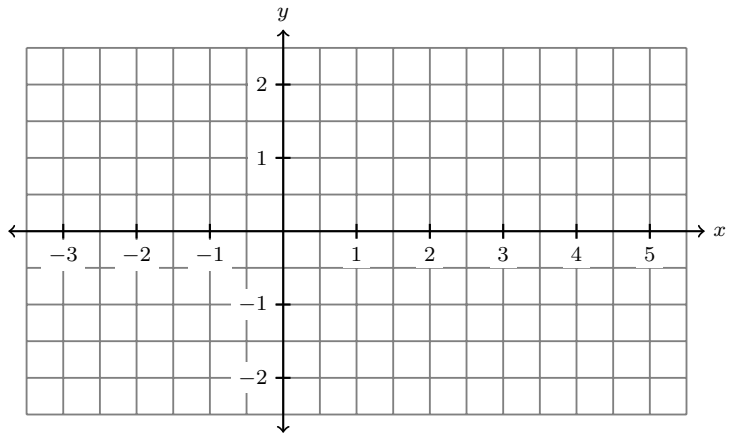- f has **NO** horizontal tangent lines

(b)

- f is continuous on $[-2, 4]$
- $f(-2) = f(4)$
- f has **NO** horizontal tangent lines

(c)

- f is continuous on $[-2, 4]$
- f is differentiable on $(-2, 4)$
- $f(-2) = f(4)$
- f has **NO** horizontal tangent lines

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2. You are driving to visit a friend and decide to take the tollway because the speed limit is a pleasant 70 miles per hour. When you enter the tollway around 12:00PM, you are given a paper card that you will use to pay when you get off of the tollway. The card records the time and the location where you entered the tollway. After 36 miles, you exit the tollway at 12:30PM. You give your card to the attendant, and you are immediately issued a speeding ticket for $100. How can they be certain you were speeding?