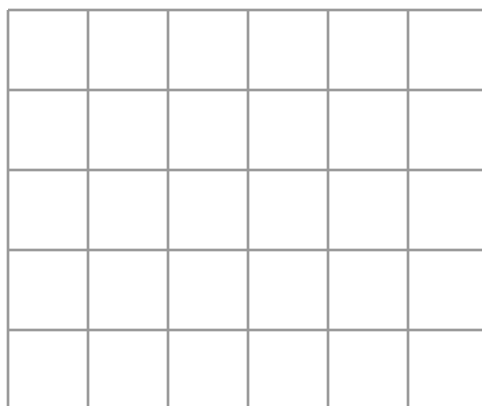
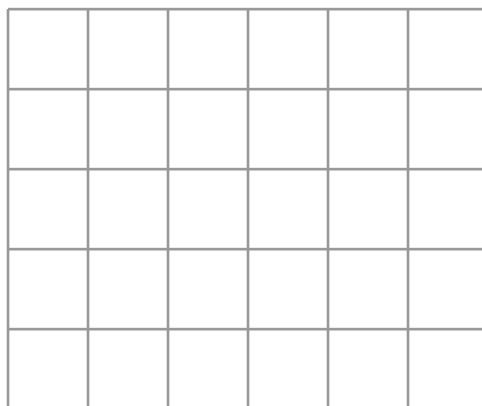


1. Sketch the graph of a function  $f$  satisfying the following:

- $f$  is continuous on  $[0, 4]$
- $f$  has a local maximum at 1
- $f$  is not differentiable at 1, but is differentiable at all other points in  $(0, 4)$
- $f$  has an absolute maximum at 3
- the absolute minimum value of  $f$  is 1.

(Two grids are provided; one is for practice. Be sure to indicate which grid contains your final answer.)



2. Sketch the graph of a function  $f$  satisfying the following:

- $f$  is defined on  $[0, 4]$ , and continuous on  $(0, 4)$ .
- $f$  is differentiable on  $(0, 4)$ .
- $f$  has a local maximum at 2
- $f'(3) < 0$
- $f$  has no absolute maximum or minimum on  $[0, 4]$ .

(Two grids are provided; one is for practice. Be sure to indicate which grid contains your final answer.)

