

In this problem, you will be given the **DERIVATIVE** f' of a function f , and your goal is to graph f . Make sure you consistently line up equal values of x .

1. Indicate the critical numbers of f on the x -axis of the graph of f .
2. In the regions on the x -axis between critical numbers, find the regions where $f'(x) > 0$ and the regions where $f'(x) < 0$.
3. Using pencil or something else you can erase, draw a “stick figure” (piecewise linear) graph of f (top axes) to match the information from (2). (I.e., your graph should be made of line segments, and should show where f is increasing and decreasing.)
4. Find the values of x for which $f'(x)$ is increasing and the values for which $f'(x)$ is decreasing.
5. Use the information about where f' is increasing and decreasing to add concavity (smiley face/frowny face) to your graph of f .







