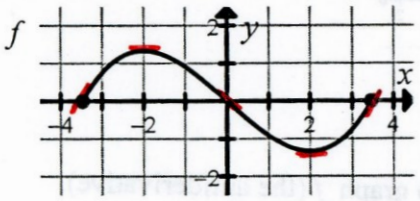
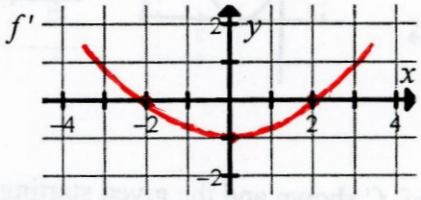
LESSON 4-5 GRAPHING DERIVATIVES AND ANTIDERIVATIVES FROM GRAPHS

Derivatives: f graph $\rightarrow f'$ graph (or f' graph $\rightarrow f''$ graph)
Find (or estimate) slopes and plot them as points.

Example: 1. Use the graph of f shown to sketch a graph of f'.



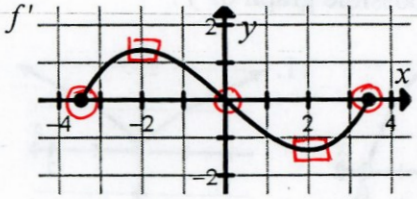


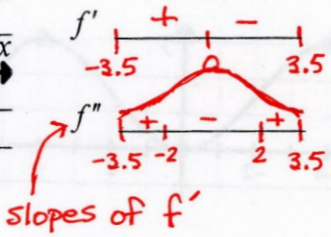
Antiderivatives: f' graph $\rightarrow$ f graph

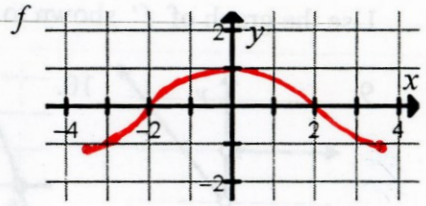
1. Make an f' number line by using the location or position of the points on the f' graph. This does not involve the slopes of f'.
2. Make an f'' number line by using the slopes of the f' graph.
3. Combine information from both number lines to graph f. If no starting point is given, you are free to shift the graph vertically.

Examples:

2. Use the graph of f' shown to sketch a graph of f with a starting point of (0,1).







3. Use the graph of f' shown to sketch a graph of f'' and a possible graph of f.