

## Main Ideas

Here are the main points that are addressed in the video. Please read these and think about them as you watch.

- The derivative function  $f'(x)$  shows you the slope of the tangent line to  $f(x)$  at each value of  $x$
- If  $f(x)$  is increasing,  $f'(x)$  has positive values; if  $f(x)$  is decreasing,  $f'(x)$  has negative values
- If  $f(x)$  is concave up, then the slope of tangent lines to  $f(x)$  increase as  $x$  increases; thus,  $f'(x)$  will be increasing