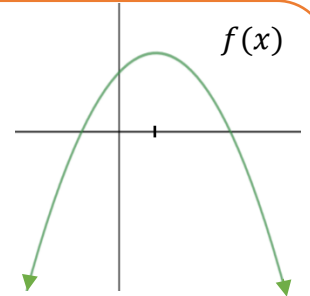


Sketching the graph of $f'(x)$ from $f(x)$

★ When $f(x)$ is increasing,
the slopes of the tangent lines for $f(x)$ are positive.

★ When $f(x)$ is decreasing,
the slopes of the tangent lines for $f(x)$ are negative.

★ When $f(x)$ is neither increasing nor decreasing,
the slopes of the tangent lines for $f(x)$ are zero or DNE.



Draw a Sketch of $f'(x)$ given $f(x)$

① Notice when $f'(x) = 0$
(slopes of tangent lines are 0, horizontal tangent lines)

② Notice when $f'(x) > 0$
(positive slopes of tangent lines are 0, $f(x)$ is increasing)

③ Notice when $f'(x) < 0$
(negative slopes of tangent lines are 0, $f(x)$ is decreasing)

