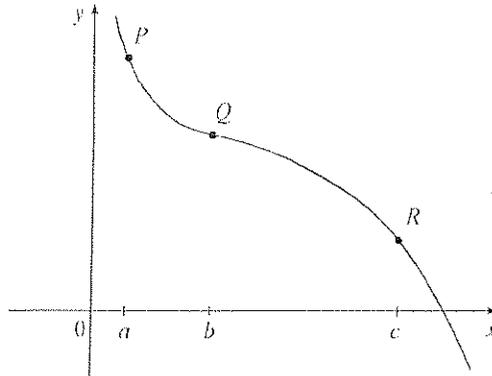
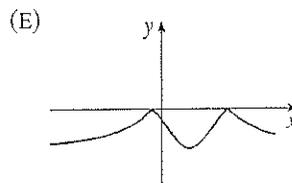
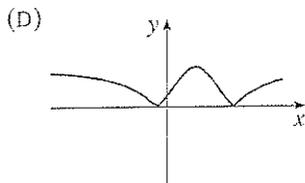
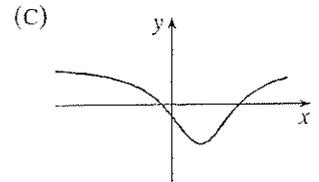
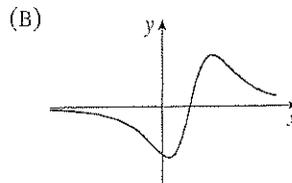
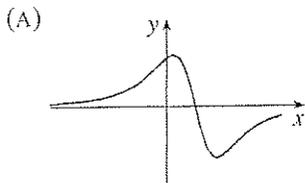
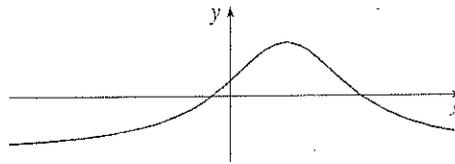


Below is the graph of the function $f(x)$.



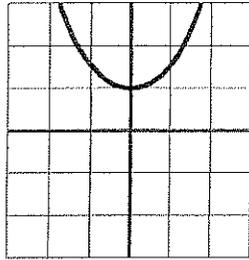
1. Place the following quantities in order, from lowest to highest: $f'(a)$, $f'(b)$, the slope m_{PQ} of the secant line PQ , the slope m_{QR} of the secant line QR , and $\frac{f(c) - f(a)}{c - a}$. Make sure to give justification for your answers.

2. The graph of f is shown below. Which of the following could be the graph of f' ?

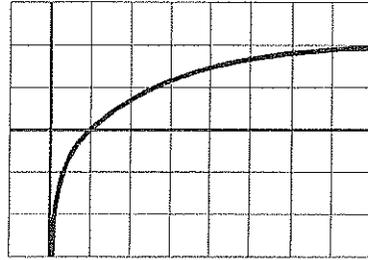


The Derivative Function

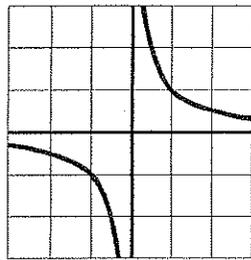
The graphs of several functions f are shown below. For each function, estimate the slope of the graph of f at various points. From your estimates, sketch graphs of f' .



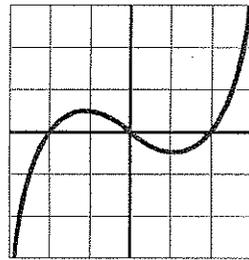
Graph 1



Graph 2



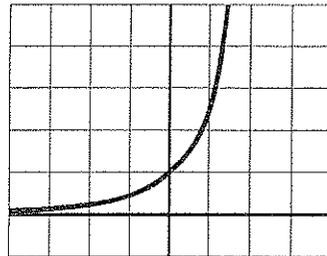
Graph 3



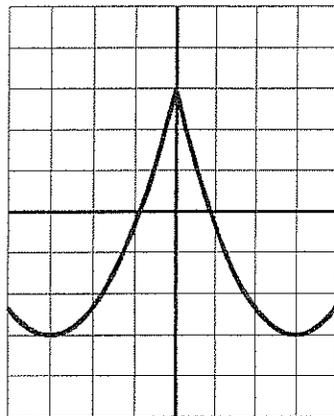
Graph 4



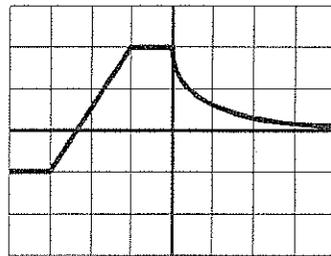
Graph 5



Graph 6



Graph 7



Graph 8