

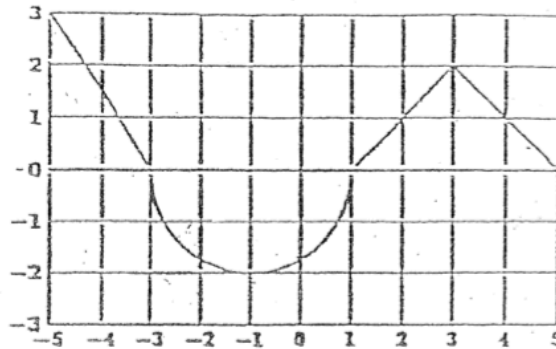
Additional Justification and Accumulation Practice

Name: _____

Complete the problems in your AP Prep Notebook

Per: _____ Group: _____

Let g be a differentiable function defined on $[-5, 5]$ such that $g(-1) = 2$. The graph of g' below consists of line segments and a half circle.



- Find $g(5)$ and $g'(5)$.
- Find $\int_{-5}^5 g'(x) dx$.
- Find the value of $g''(-4)$, $g''(-1)$ and $g''(3)$ or state that it does not exist.
- Find the x -coordinate of each relative extrema on the graph of g . Justify your answer.
- On what intervals, if any, is g increasing? Justify.
- At $x = 1$, is there a point of inflection on the graph of g ? Explain your reasoning.
- On what intervals, if any, is g concave up? Justify.
- Find the absolute minimum value of g on the interval $[-5, 5]$. Show all work that leads to your answer.
- Write an equation for the line tangent to the graph of g at $x = -5$.

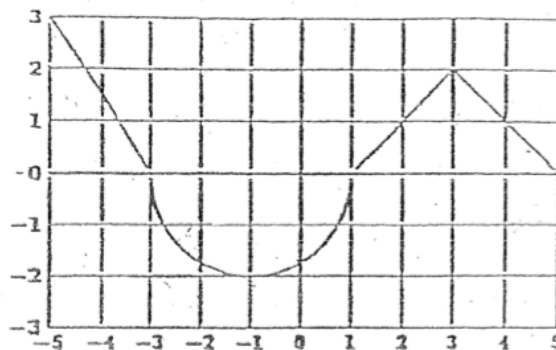
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