MPS21XH - More Practice with Rate of Change and Concavity
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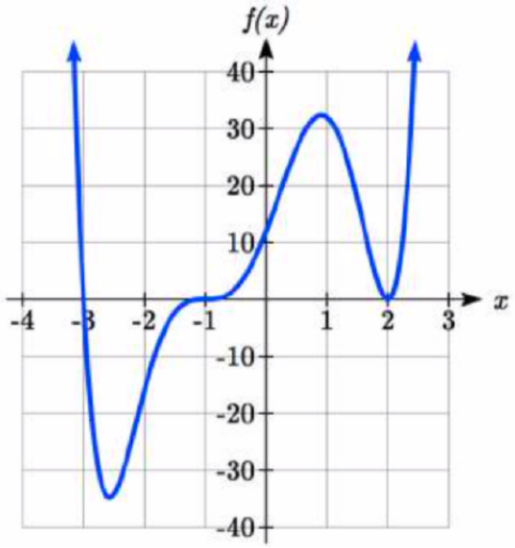
x	$1 < x < 2$	$2 < x < 3$	$3 < x < 4$	$4 < x < 5$
Rate of change of $g(x)$	Positive,Increasing	Negative,Increasing	Positive,Decreasing	Negative,Decreasing

1.) Given a table that gives characteristics of the rates of change of the function $g(x)$.

a.) Describe the behavior of the graph of $g(x)$ for all $x \in (3, 4)$. Justify your answer.

b.) For what values of x does the graph of g have a relative extrema? Be specific and justify your answer.

c.) For what values of x does the graph of g have a point of inflection? Justify your answer.



2.) Given the graph of a polynomial function $f(x)$:

a.) For what values of x does the graph of f have a local minimum? Justify your answer.

b.) For what values of x is the graph of f concave up? Justify your answer.

c.) Determine the equation of $f(x)$ from the graph.