

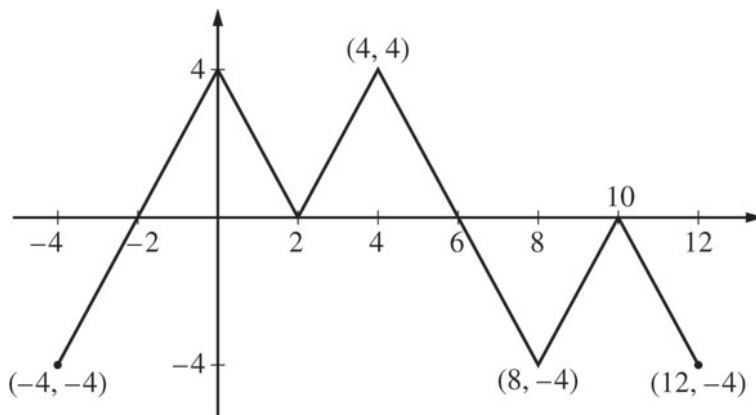
2016 AP[®] CALCULUS AB FREE-RESPONSE QUESTIONS

**CALCULUS AB
SECTION II, Part B**

Time—60 minutes

Number of problems—4

No calculator is allowed for these problems.



Graph of f

3. The figure above shows the graph of the piecewise-linear function f . For $-4 \leq x \leq 12$, the function g is defined by $g(x) = \int_2^x f(t) dt$.
- (a) Does g have a relative minimum, a relative maximum, or neither at $x = 10$? Justify your answer.
 - (b) Does the graph of g have a point of inflection at $x = 4$? Justify your answer.
 - (c) Find the absolute minimum value and the absolute maximum value of g on the interval $-4 \leq x \leq 12$. Justify your answers.
 - (d) For $-4 \leq x \leq 12$, find all intervals for which $g(x) \leq 0$.
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