

# BA: 5.3

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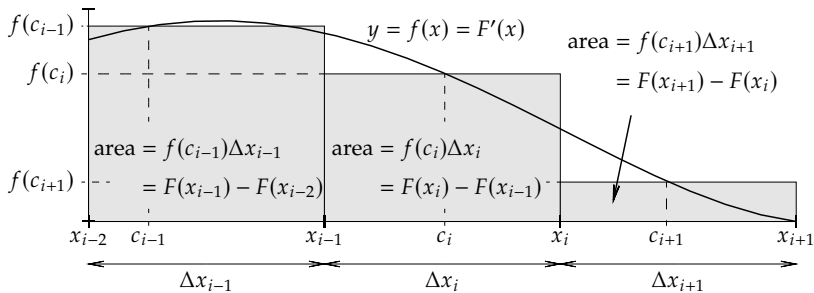
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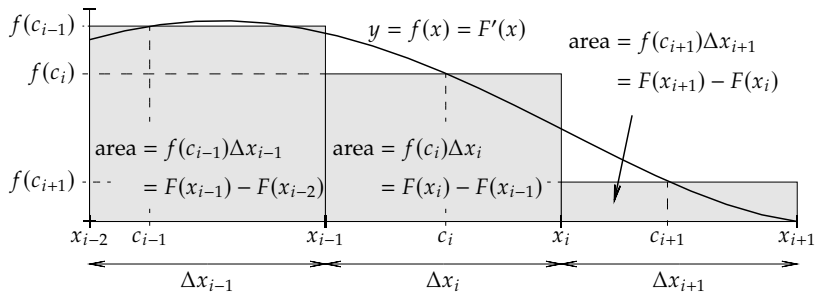
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The area of all three shaded rectangles is  $F(x_{i+1}) - F(x_{i-2})$ .



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Let  $g: [a, b] \rightarrow \mathbb{R}$  be continuously differentiable,  $f: [c, d] \rightarrow \mathbb{R}$  continuous, and suppose  $g([a, b]) \subset [c, d]$ . Then

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- 3)  $g$  is not continuous on  $[-1, 1]$ , let alone continuously differentiable.



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- c) Find  $g$  for  $f(x) := |x|$ ,  $\epsilon = 1$  (you can assume  $[a, b]$  is large enough).