

AcroTeX eEducation System Tools  
AcroTeX.Net

## AeBST: Quizzes with Points

D. P. Story

1999-2006 [dpstory@acrotex.net](mailto:dpstory@acrotex.net)  
Prepared: December 30, 2006

<http://www.acrotex.net>  
Published: December 30, 2006

## Quiz Environment

Answer each of the following. Passing is 100%.

- (6<sup>pts</sup>) If  $\lim_{x \rightarrow a} f(x) = f(a)$ , then we say that  $f$  is...  
differentiable                      continuous                      integrable
- (6<sup>pts</sup>) Name *one* of the two people recognized as a founder of Calculus.
- (8<sup>pts</sup>)  $\frac{d}{dx} e^{x^2} =$

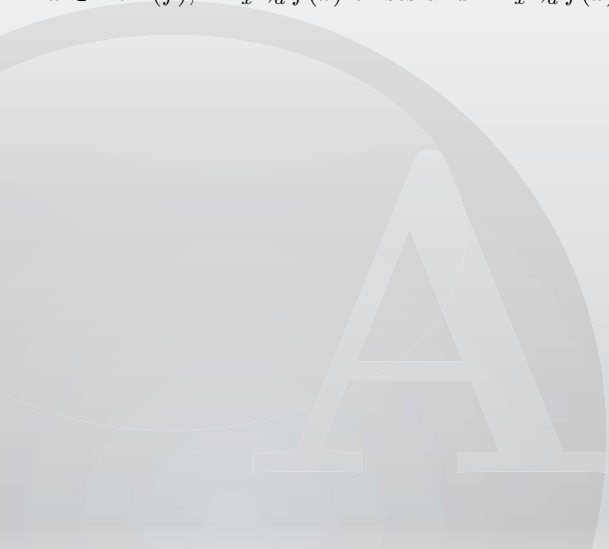
Answers:

Points:

Percent:

## Solutions to Quizzes

**Solution to Quiz:** A function  $f$  is said to be continuous at  $x = a$  if  $x \in \text{Dom}(f)$ ,  $\lim_{x \rightarrow a} f(x)$  exists and  $\lim_{x \rightarrow a} f(x) = f(a)$ . ■



**Solution to Quiz:** Isaac Newton and Gottfried Leibniz are the co-creators of Calculus.



**Solution to Quiz:** First apply the rule for differentiating an the natural exponential, then apply the power rule:

$$\begin{aligned}\frac{d}{dx} e^{x^2} &= e^{x^2} \frac{d}{dx} x^2 \\ &= e^{x^2} (2x) \\ &= 2xe^{x^2}\end{aligned}$$

In the syntax of this document, `2*x*e^(x^2)`.

