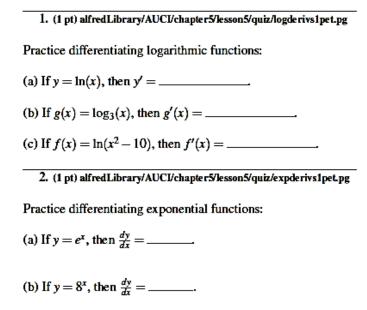
## Quiz 5.5 – Derivatives and Antiderivatives of Exponentials and Logarithms



(c) If  $y = 1000 \cdot 1.03^x$ , then  $\frac{dy}{dx} =$  \_\_\_\_\_

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(d) If  $y = e^{3x^2}$ , then  $\frac{dy}{dx} =$  \_\_\_\_\_. (e) If  $y = 4^{3x^2}$ , then  $\frac{dy}{dx} =$  \_\_\_\_\_. 3. (1 pt) alfredLibrary/AUCI/chapter5/lesson5/quiz-/expinte grals1pet.pg Practice integrating exponential functions:

(a) 
$$\int e^{x} dx =$$
\_\_\_\_\_  
(b)  $\int 6^{x} dx =$ \_\_\_\_\_  
(c)  $\int 3 \cdot 4^{x} dx =$ \_\_\_\_\_

4. (1 pt) alfredLibrary/AUCI/chapter5/lesson5/quiz/problem33pet.pg

$$\int \left(7 + \frac{4}{T} + \frac{10}{T^2}\right) dT = \underline{\qquad}$$