

Quiz #4

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit! Your answer to problem # 2 should be written in a clear and concise manner using a combination of complete sentences and symbolic expressions. An answer without explanation or that is poorly presented may not receive full credit.

1. (1 point) Find the derivative of $(x^3 + 1)e^x$.

A. $(x^3 + 3x^2 + 1)e^x$

B. $3xe^x$

C. $(3x^2 + 1)e^x$

D. $3x^2 + e^x$

E. None of the above

2. (2 points) Find the value of $f'(-2)$ for the function $f(x) = 2x^3 - x + 7$.

Solution: First, let's find a derivative of $f(x)$ with respect to x , that is

$$f'(x) = 6x^2 - 1.$$

Now, we just need to evaluate $f'(x)$ at $x = -2$, so

$$f'(-2) = 6(-2)^2 - 1 = 24 - 1 = \boxed{23}.$$

Name: _____

Question:	1	2	Total
Points:	1	2	3
Score:			