

Please show **all** your work! Answers without supporting work will not be given credit.  
Write answers in spaces provided.

Name: \_\_\_\_\_

1. Find the derivative of the following functions:

(a) [2 pts]  $u(x) = 3e^x$

(c) [2 pts]  $w(x) = \frac{2}{x^2} + 4x^2 + 6x + 1$

(b) [2 pts]  $v(x) = 2 \cos(x)$

2. [4 points] Let  $h(x) = u(x) \cdot w(x)$ . Find  $h'(x)$ . (**Don't Simplify.**)