## Rhino Participation Bonus (+2)

In STAT 511 and STAT 516, the following integrals are needed, Both are functions of $a$.
Use integration by parts to find the antiderivatives. Complete each box. Show correct work for credit.
(+1)

(+1)
2. $\int a x^{2} e^{-a x} d x=\square+C$ Hint: Use \#1.

