MATH 222

Problem 1. (4 Points) Answer the following questions. **No** partial credit will be given, and you **do not** need to show your work.

(a) Complete the integration by parts formula:

$$\int u \ dv = \underline{\hspace{1cm}}$$

(b) Circle the correct answer:

$$\cos^2(x) = \frac{1}{2}(1 + \cos(2x))$$
 or $\frac{1}{2}(1 - \cos(2x))$

Problem 2. (6 Points) Compute $\int x \ln(2x) dx$