

# Quiz 5

Show *all* your work. Reasonable supporting work must be shown for any partial credit.

1. [2] Write down the integration by parts formula. That is, complete the equation below:

$$\int u \, dv =$$

2. For each of the following, identify the technique you would use to find the indefinite integral. For example, if you think substitution would work, write “substitution” and identify what  $u$  would be. If you think integration by parts, write “integration by parts” and identify what  $u$  and  $dv$  would be.

- (a) [2] (WebHW7-1#4)

$$\int \sin(t) \sqrt{1 + \cos(t)} \, dt$$

- (b) [2] (Week5MondayActivity#2)

$$\int \frac{(\ln(x))^2}{x^2} \, dx$$

3. [4] Evaluate *one* of the indefinite integrals above.