Name: ____

Circle True or False or leave blank. (1 point for correct answer, -1 for incorrect answer, 0 if left blank)

- 1. True False We can use the addition differentiation law to prove the addition integration law for indefinite integrals $(\int (f+g) = (\int f) + (\int g))$.
- 2. True False Integrating an integrable function f(u) from a to x gives us a specific anti-derivative of f.

Show your work and justify your answers. Please circle or box your final answer.

3. (10 points) (a) (3 points) Write $\int_{1}^{4} \sqrt{1 - \sqrt{x}} dx$ as a limit of right endpoint Riemann sums (no need to calculate it).

(b) (7 points) Find
$$\int \sqrt{1 - \sqrt{x}} dx$$