

Math 10A with Professor Stankova

Quiz 7; Wednesday, 10/11/2017

Section #107; Time: 11 AM

GSI name: Roy Zhao

Name: _____

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

1. True False For $f(x)$ continuous on $[a, b]$, the function $F(x) = \int_a^x f(u)du$ is the unique anti-derivative of f on $[a, b]$ satisfying $F(a) = 0$.
2. True False If $f(x)$ is continuous on $[a, b]$, then $F(x) = \int_a^x f(u)du$ is continuous on (a, b) .

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

3. (10 points) (a) (3 points) Write $\int_2^5 \sqrt{1 + \sqrt{x}}dx$ as a limit of right endpoint Riemann sums (no need to calculate it).

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