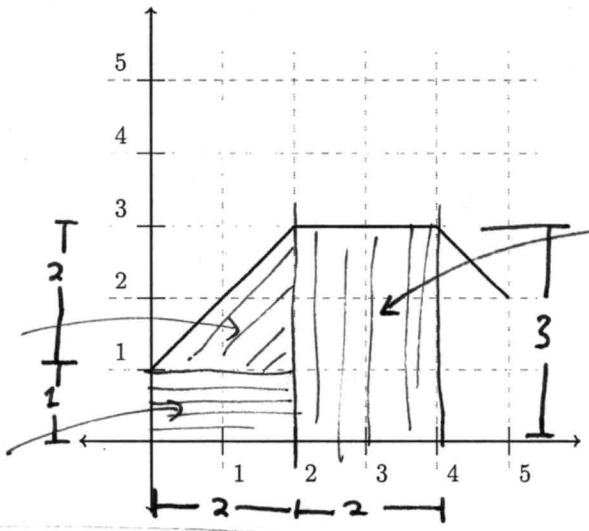
Quiz #5 Math 1131 April 25, 2014

Name: Key Section: _____

You have 10 minutes to complete the quiz. Please **show all work**, and then **circle your answer.**

1. Let $f(x)$ be defined using the graph below.

   Compute the integrals $\int_0^2 f(x)\,dx$ and $\int_0^4 f(x)\,dx$

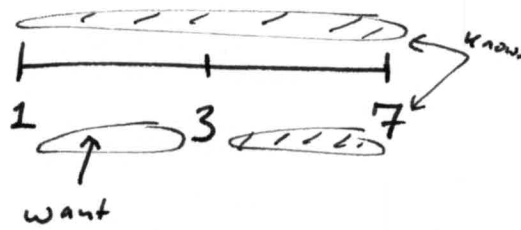


1pt for identifying integrals as area

$$\int_0^2 f(x)\,dx = \frac{1}{2}\cdot 2\cdot 2 + 1\cdot 2 = 2+2 = 4 \quad \leftarrow 2\text{pt}$$

$$\int_0^4 f(x)\,dx = \frac{1}{2}\cdot 2\cdot 2 + 1\cdot 2 + 2\cdot 3 = 4+6 = 10 \quad \leftarrow 2\text{pt}$$

2. Suppose that $\int_1^7 f(x)\,dx = 6$ and that $\int_3^7 f(x)\,dx = 4$. Find $\int_1^3 f(x)\,dx$.



2pt $\int_1^7 f(x)\,dx = \int_1^3 f(x)\,dx + \int_3^7 f(x)\,dx$

1pt $6 = \int_1^3 f(x)\,dx + 4$

2pt $\int_1^3 f(x)\,dx = 2$