

College of the Holy Cross, Spring Semester, 2019
Math 134 Worksheet 2
Due Thursday, January 31

1. For each definite integral below, sketch the graph of the function and interpret the integral in terms of areas shown in the graph. Then use this interpretation to evaluate the integral.

(a) $\int_0^3 x + 1 \, dx$

(c) $\int_0^3 |x - 2| \, dx$

(b) $\int_0^4 2x - 5 \, dx$

(d) $\int_0^3 4 + \sqrt{9 - x^2} \, dx$

2. Suppose $\int_1^4 f(x) \, dx = 10$ and $\int_1^4 g(x) \, dx = 7$. Compute $\int_1^4 3f(x) + 2g(x) + 7 \, dx$

3. Suppose $\int_0^1 f(x) \, dx = 5$, $\int_1^4 f(x) \, dx = 6$, and $\int_2^4 f(x) \, dx = 2$.

(a) Compute $\int_0^4 f(x) \, dx$

(b) Compute $\int_0^2 f(x) \, dx$

(c) Compute $\int_1^2 f(x) \, dx$