Name _____

Homework 19
Section 5.2

1. (3) Compute exactly, without a calculator, $\int_{-2}^{6} |x| - 2 \, dx$. *Hint*: graph it.

2. (2) Use the following table to find the best estimate of $\int_0^{12} f(x)dx$.

x	0	3	6	9	12
$f(x)$	8	4	1	-3	6

3. (4) Number 30 in section 5.2 (page 287).

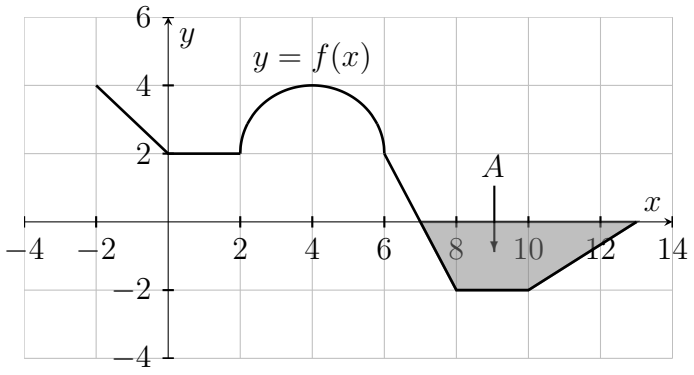
(a) $\int_0^2 f(x) \, dx =$ _____

(b) $\int_{-2}^2 f(x) \, dx =$ _____

(c) The total shaded area is _____

(d) $\int_{-2}^2 |f(x)| \, dx =$ _____

4. (3ea) Use the graph of $f(x)$ shown below to compute the indicated quantities.



(a) $\int_{-2}^{2} f(x)\,dx$

(b) $\int_{2}^{6} f(x)\,dx$

(c) $\int_{6}^{10} f(x)\,dx$

(d) Find A, the area of the shaded region shown