

Name \_\_\_\_\_

Homework 32  
section 5.2

1. (5) Compute exactly, without a calculator,  $\int_{-1}^4 x \, dx$ . *Hint*: it may help to sketch a picture.

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

$x$	0	3	6	9	12
$f(x)$	30	22	16	12	12

3. (4) Without a calculator, compute  $\int_{-2}^2 \sqrt{4-x^2} dx$  exactly. Also compute  $\int_0^2 \sqrt{4-x^2} dx$ .  
*Hint: geometry?*

4. (6) Number 32 on page 271.

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

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

(c) The total shaded area is \_\_\_\_\_

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