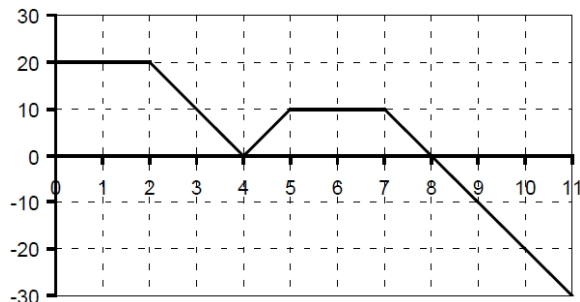


Section 5.3

Another Example

Use the graph of $f(x)$ shown below to answer the following questions.



1. Compute the values in the following table:

b	0	1	2	3	4	5	6	7	8	9	10
$\int_0^b f(x)dx$											

2. If $F(x)$ is a function such that $F(0) = 0$ and $F'(x) = f(x)$, find the intervals where $F(x)$ is:

- (a) Increasing
- (b) Decreasing
- (c) Concave up
- (d) Concave down

3. Use the information above to sketch an accurate graph of $F(x)$.

4. Illustrate $\int_2^4 f(x)dx$ on the graph of $f(x)$ and $F(4) - F(2)$ on the graph of $F(x)$. How do the values of the two expressions compare?

5. How would your graph of $F(x)$ change if $F(0) = 2$ instead?