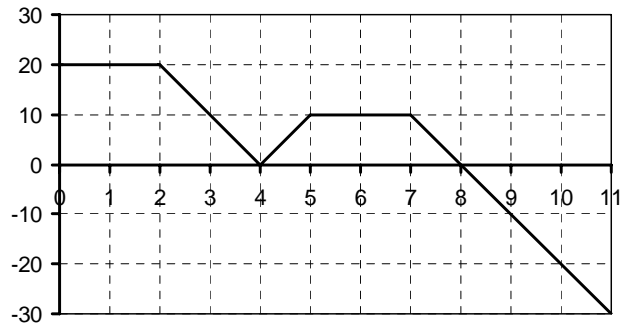


Use the graph of  $f(x)$  shown below to answer the following:



1. Illustrate  $\int_0^3 f(x)dx$  on the graph above.

2. Complete the values in this table:

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

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

increasing \_\_\_\_\_

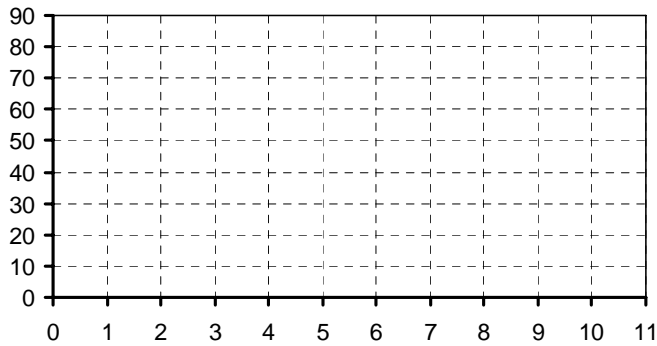
concave up \_\_\_\_\_

decreasing \_\_\_\_\_

concave down \_\_\_\_\_

linear \_\_\_\_\_

4. Use the information in parts 2 and 3 to sketch an accurate graph of  $F(x)$ .



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