2. [14 points] An **even** function h(x), which is defined for all real numbers, is graphed on the interval [0, 6] below. Note that h(x) is linear on the intervals (0, 2) and (2, 4), and that the shaded region has area 4.



a. [4 points] The function h(x) has a continuous antiderivative, H(x), which satisfies H(2) = -3. Complete the following table of values for H(x).

x	-2	0	2	4	6
H(x)			-3		

b. [10 points] Sketch a graph of H(x) on the interval [-2, 6] using the axes provided. Make sure to clearly label the values at the points in the table above and also make it clear where H(x) is increasing or decreasing, and where H(x) is concave up, concave down, or linear.

