**6.*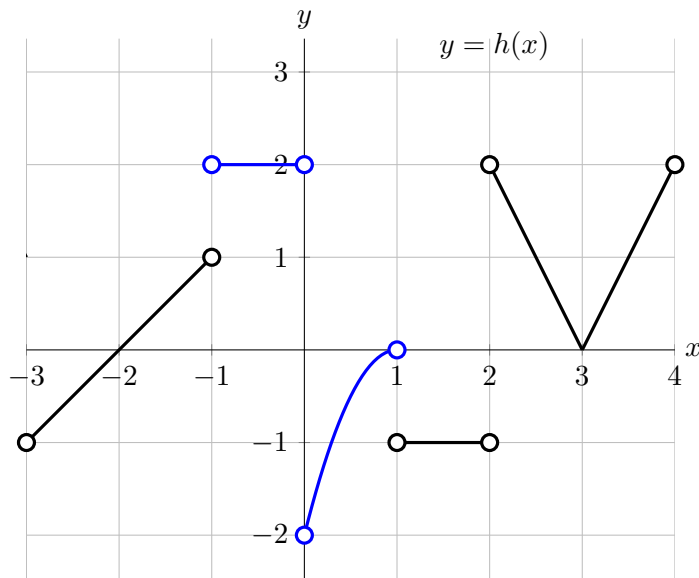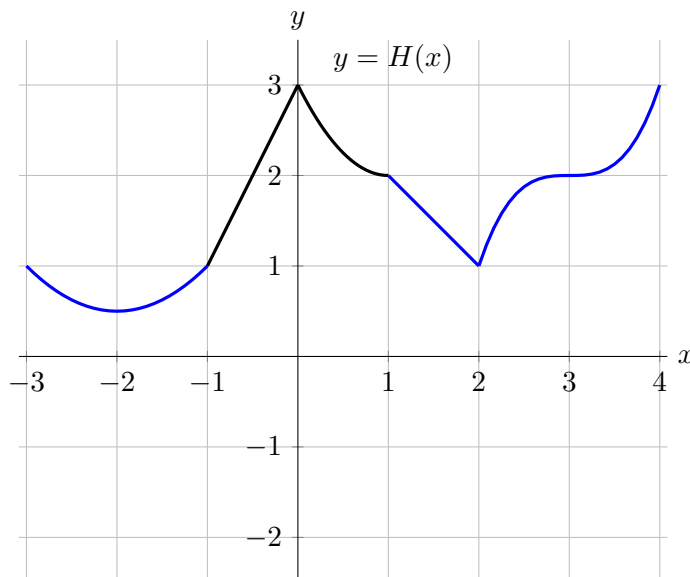* [11 points] Suppose $h(x)$ is a function and $H(x)$ is an antiderivative of $h(x)$ such that $H(x)$ is defined and continuous on the entire interval $-3 \leq x \leq 4$. Portions of the graphs of $h(x)$ and $H(x)$ are shown below.

a. [4 points] Use the portions of the graphs shown to fill in the <u>exact</u> values of $H(x)$ in the table below.

x	-3	-2	1	2	4
$H(x)$	1.0	0.5	2.0	1.0	3.0

b. [7 points] Use the axes above to sketch the missing portions of the graphs of <u>both</u> h and H over the interval $-3 \leq x \leq 4$.

Be sure that you pay close attention to each of the following:

- the values of $H(x)$ you found in part (a) above
- where H is/is not differentiable
- where H and h are increasing, decreasing, or constant
- the concavity of the graph of $y = H(x)$