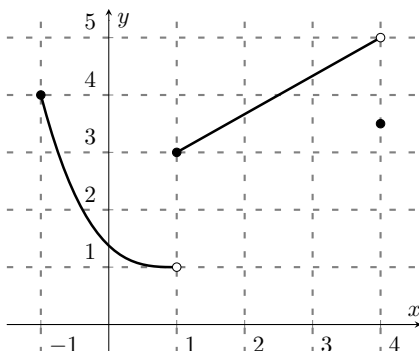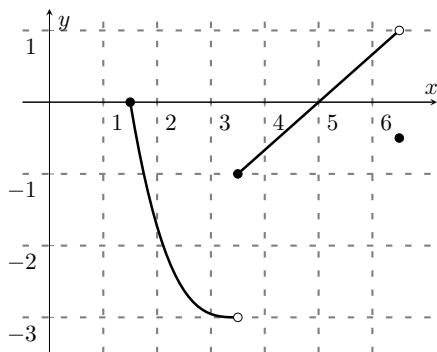**6.** [9 points] The function $h(x)$ is given in the graph below. Note that h is linear for $1 \leq x < 4$.
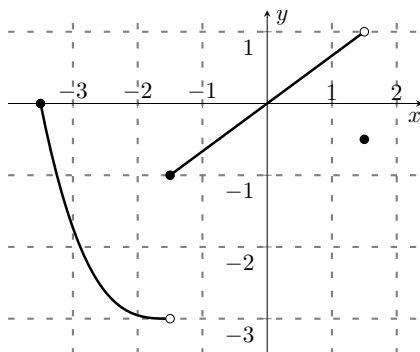

a. [3 points] Find all the values of x for which $h(x) \leq 4$.

Solution: $-1 \leq x \leq 2.5$ or $x = 4$.

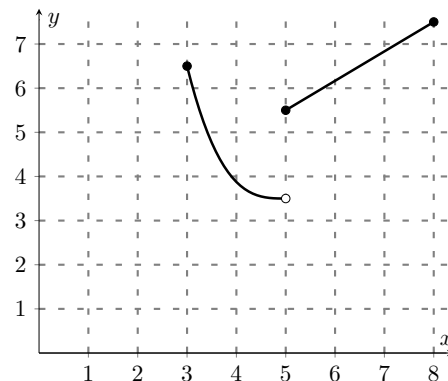**b.** [2 points] Choose which of the graphs I, II, and III corresponds to the function $k(x) = h(x + 2.5) - 4$. Circle exactly one of I, II, and III.
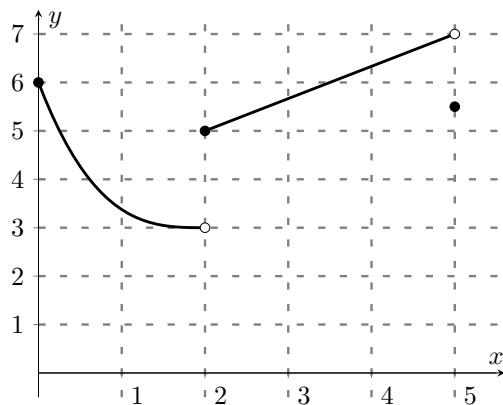

I

II

III

c. [4 points] Below is the graph of the function $c(x)$ which is a transformation of the graph of $h(x)$. Find a formula for $c(x)$ in terms of $h(x)$.

$$c(x) = \underline{\quad\quad h(x - 1) + 2 \quad\quad}$$