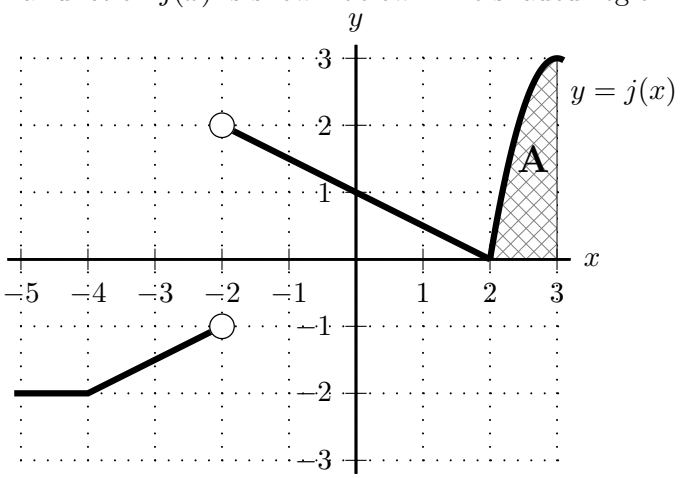
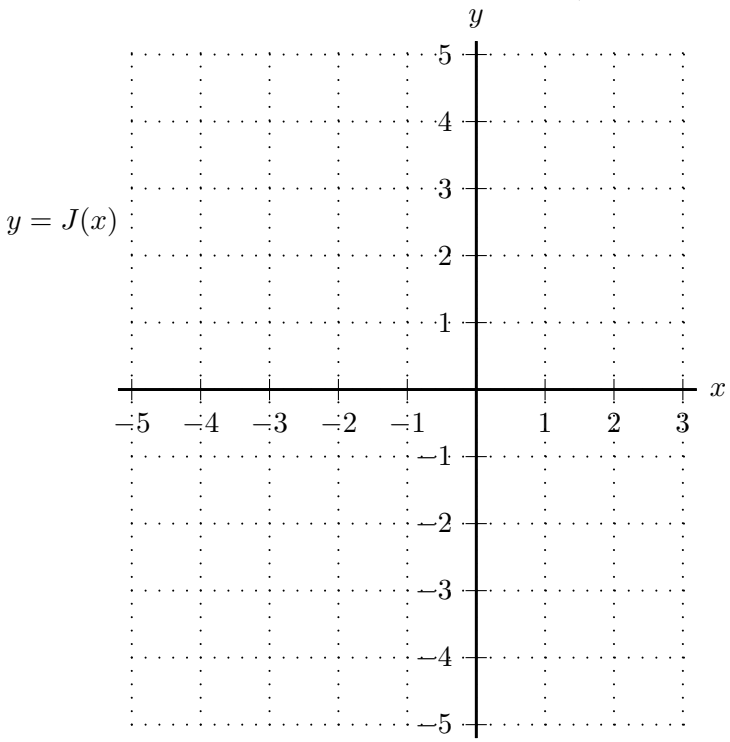
7. [10 points] The graph of a function $j(x)$ is shown below. The shaded region A has area 2.



On the axes provided below, sketch a well-labeled graph of an antiderivative of $J(x)$ of $j(x)$ that is defined and continuous on the interval $-5 \leq x \leq 3$ and that satisfies $J(0) = 1$.
Be sure that you pay close attention to each of the following:

- the value of $J(x)$ at each of its critical points and inflection points
  (Be sure to also write this data in the answer blanks at the bottom of the page.)
- where J is/is not differentiable
- where J is increasing/decreasing/constant
- the concavity of the graph of $y = J(x)$



On the answer blanks below, write both the x– **and** y–coordinates of all critical points and all inflection points of $J(x)$. Write NONE if $J(x)$ has no such points.

Both coordinates of all critical points: _____

Both coordinates of all inflection points: _____