4. [10 points] The entire graph of the function $f(x)$ is given below. Note that $f(x)$ is piecewise linear on $(-4, 2)$, and the area of the shaded region $A$ is 1.5.

\[y = f(x)\]

\[\begin{array}{cccccccc}
\text{x} & -4 & -3 & -2 & -1 & 1 & 2 & 3 & 4 \\
y & -2 & -1 & 1 & 2 & 2 & 1 & 1 & 2 \\
\end{array}\]

\[A\]

a. [2 points] Let $F(x)$ be the continuous antiderivative of $f(x)$ passing through $(2, 1)$. Circle all of the $x$-coordinates listed below at which $F(x)$ appears to have an inflection point.

- $x = -3$
- $x = 1$
- $x = 2$
- $x = 3$
- NONE OF THESE

b. [8 points] On the axes to the right, sketch a graph of the function $G(x)$, a continuous antiderivative of $f(x)$ given on $(-3, 2)$ by

\[G(x) = \int_{-1}^{x} f(t) \, dt.\]

Make sure that local extrema and concavity are clear. If there are features that are difficult for you to draw, indicate these on your graph.