Exercise 5

Use the graph to state the absolute and local maximum and minimum values of the function.
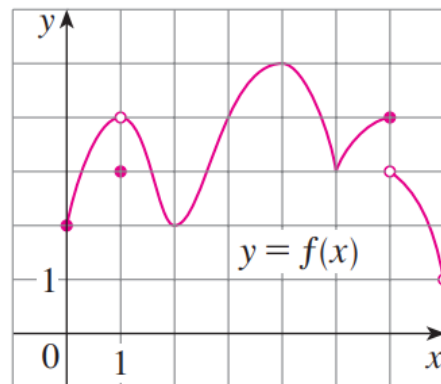
Solution

$$
\begin{aligned}
\text{Absolute Maximum} : \quad & (4, 5) \\
\text{Absolute Minimum} : \quad & \text{None} \\
\text{Local Minima} : \quad & (1, 3),\ (2, 2),\ (5, 3) \\
\text{Local Maxima} : \quad & (4, 5),\ (6, 4)
\end{aligned}
$$

$(0, 2)$ and $(7, 1)$ are not local minima because they're at the endpoints. In addition, the function is not defined at $x = 7$.