**Definition.**

Suppose \( f \) is a function defined in some open interval containing \( x = a \). Then \( f \) is **continuous at** \( x = a \) provided

\[
\lim_{x \to a} f(x) = f(a).
\]

The function \( f \) is **continuous on the open interval** \((a, b)\) provided \( f \) is continuous at each point of \((a, b)\).

What does this definition tell you about the graph of \( f \)?