## Maximum and Minimum Values

## Question

Suppose $f$ has a critical point at $(3,2), f_{x x}(3,2)<0$ and $D=f_{x x}(3,2) f_{y y}(3,2)-\left(f_{x y}(3,2)\right)^{2}>0$. What can you conclude?
A. $f$ has a local minimum at $(3,2)$.
B. $f$ has a local maximum at $(3,2)$.
C. $f(3,2)$ is not a local maximum nor a local minimum of $f$.
D. There is not enough information to decide.

