## Directional Derivatives and the Gradient

## Question

If $f$ is not a constant function, what angle $\theta$ should $\vec{u}$ make with $\nabla f$ at $P$ in order that $D_{\vec{u}} f(P)$ is as large as possible?
A. $0^{\circ}$
B. $90^{\circ}$
C. $180^{\circ}$
D. Not enough information

