Directional Derivatives and the Gradient

Question

If ∇f at P is $\vec{v} = \langle 3, 4, 12 \rangle$, then what is $D_{\vec{u}} f$ at P when the angle between $\vec{u}$ and $\vec{v}$ is $60°$?

A. 13

B. $\dfrac{13}{2}$

C. $\dfrac{13\sqrt{3}}{2}$

D. Not enough information to answer.