



Question

If $w = xy$ where $x = r \cos(\theta)$ and $y = r \sin(\theta)$, which expression computes $\frac{\partial w}{\partial \theta}$?

- A. $\frac{\partial w}{\partial \theta} = 0$
- B. $\frac{\partial w}{\partial \theta} = r^2 \cos(2\theta)$
- C. $\frac{\partial w}{\partial \theta} = -r^3 \sin^2(\theta) \cos(\theta) + r^3 \sin(\theta) \cos^2(\theta)$
- D. None of the above