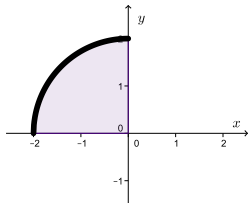# Maximum and Minimum Values

### Question

Suppose you wanted to investigate the values of a function $f(x, y)$ along the arc of the quarter circle shown. Which of these substitutions would you plug into $f$?



A. $x = -\sqrt{4 - y^2}$ with $0 \leq y \leq 2$

B. $y = \sqrt{4 - x^2}$ with $0 \leq x \leq 2$

C. $x = \sqrt{4 - y^2}$ with $0 \leq y \leq 2$

D. $y = -\sqrt{4 - x^2}$ with $-2 \leq x \leq 0$