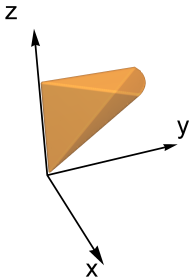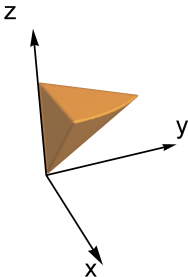# Cylindrical Coordinates

Question

The regions shown are bound by portions of planes and a cone. Which of them could be described by the inequalities $0 \leq r \leq z$, $\frac{\pi}{4} \leq \theta \leq \frac{\pi}{2}$, and $0 \leq z \leq 1$?
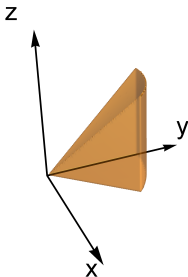
A.

B.

C.

D.