

Write a sentence in first-order logic to express the following fact about a universe:

“There isn’t any restaurant that sells popcorn, but cinemas do.”

Use the unary predicates  $\mathbf{R}(x)$ ,  $\mathbf{C}(x)$ , and  $\mathbf{P}(x)$ , referring respectively to “ $x$  is a restaurant”, “ $x$  is a cinema”, and “ $x$  sells popcorn.”