$$\begin{array}{ccccccccc}
\varphi(\theta): & 0 & \longrightarrow & \varphi(A) & \longrightarrow & \varphi(B) & \longrightarrow & \varphi(C) & \longrightarrow & 0 \\
& & & \downarrow & & \downarrow & \square & \downarrow & & \downarrow \\
\theta^k: & 0 & \longrightarrow & A^k & \longrightarrow & B^k & \longrightarrow & C^k & \longrightarrow & 0
\end{array}$$