

$$\begin{array}{ccccccc}
 0 & \longrightarrow & \mathbb{Z} & \xrightarrow{\cdot 2} & \mathbb{Z} & \longrightarrow & \mathbb{Z}/(2) \longrightarrow 0 \\
 \downarrow \scriptstyle \mathbb{Z}/(2) \otimes_{\mathbb{Z}} \cdot & & & & & & \\
 ?? & \longrightarrow & \mathbb{Z}/(2) & \xrightarrow{\cdot 2^*} & \mathbb{Z}/(2) & \longrightarrow & \mathbb{Z}/(2) \otimes_{\mathbb{Z}} \mathbb{Z}/(2) \longrightarrow 0
 \end{array}$$