

$$\begin{array}{ccc}
 \mathbb{Z}[\theta]/(p) & \xrightarrow{\varphi} & \mathcal{O}_K/(p) \\
 \downarrow \psi & & \downarrow \\
 \mathbb{Z}[\theta]/(p, g_i(\theta)) & \hookrightarrow & \mathcal{O}_K/\mathfrak{p}_i
 \end{array}$$