

$$0 \longrightarrow \mathbb{C}[t] \otimes_{\mathbb{C}} \mathbb{C}[t] \xrightarrow{m_t \otimes 1 - 1 \otimes m_t} \mathbb{C}[t] \otimes_C \mathbb{C}[t] \longrightarrow \mathbb{C}[t] \longrightarrow 0$$

$$f \otimes g \longrightarrow tf \otimes g - f \otimes tg$$

$$f \otimes g \longrightarrow f \cdot g$$