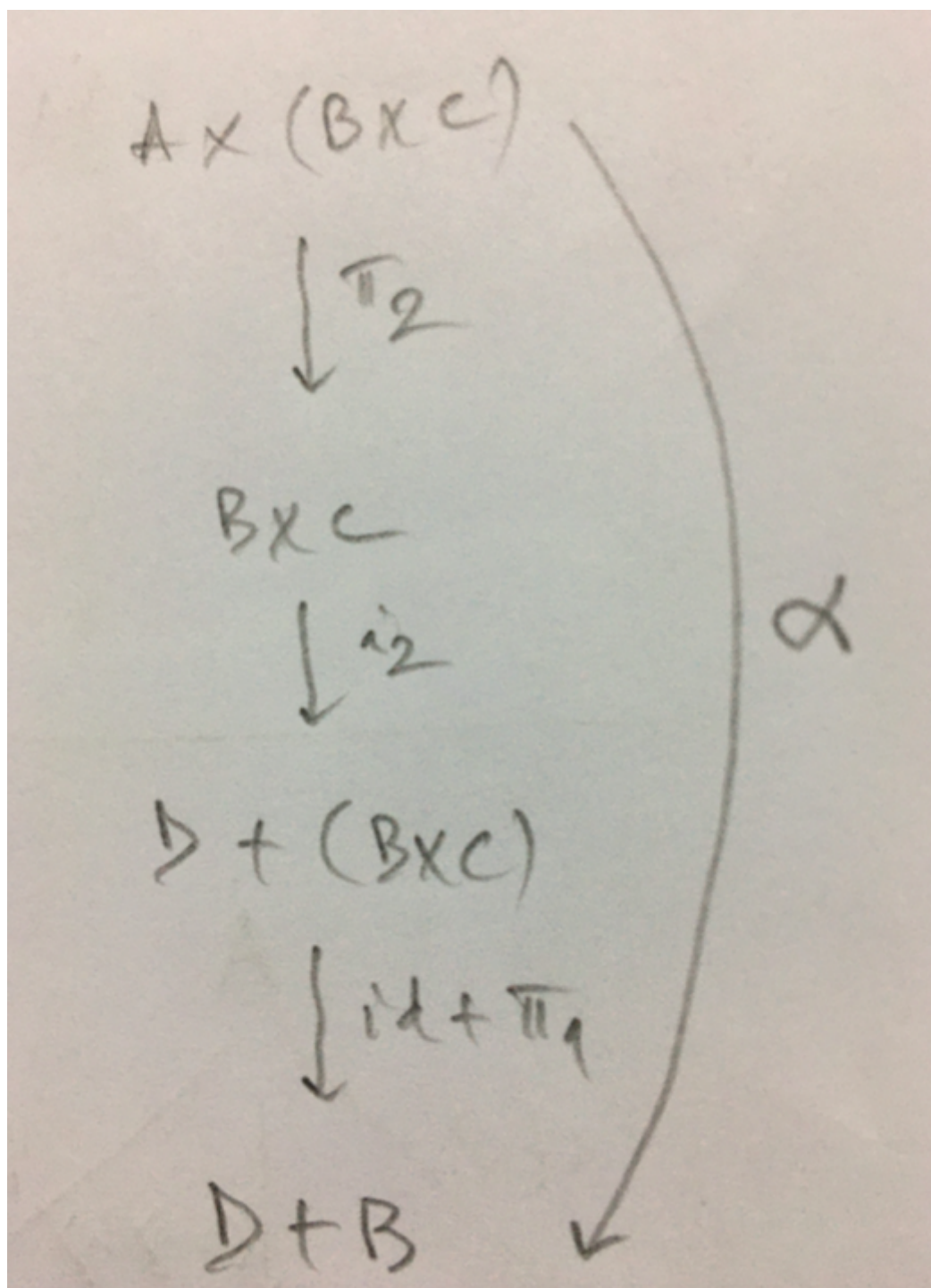


2. Deduza o tipo mais geral da função $\alpha = (id + \pi_1) \cdot i_2 \cdot \pi_2$ e infira a respectiva propriedade *grátis* (*natural*) através de um diagrama.



$$\begin{array}{ccc}
 D + B & \xleftarrow{\alpha} & A \times (B \times C) \\
 f + g \downarrow & & \downarrow h \times (g \times i) \\
 D' + B' & \xleftarrow{\alpha} & A' \times (B' \times C')
 \end{array}$$

$$(f + g) \cdot \alpha = \alpha \cdot (h \times (g \times i))$$