

i. $\Delta^a \mathbb{Z}^b$ \cong $\mathbb{Z}^a \times \mathbb{Z}^b$ \cong \mathbb{Z}^{a+b} \cong $\mathbb{Z}^a \times \mathbb{Z}^b$ \cong \mathbb{Z}^{a+b} \cong $\mathbb{Z}^a \times \mathbb{Z}^b$ \cong \mathbb{Z}^{a+b}

