Q2: We claim that $\mathbb{Z}/(m) \otimes_{\mathbb{Z}} \mathbb{Z}/(n) \cong \mathbb{Z}/(m,n)$. Consider the following commutative diagram:

$\mathbb{Z}/(m) \times \mathbb{Z}/(n)\mathbb{Z}/(m) \otimes_{\mathbb{Z}\,\mathbb{Z}/(n)} \mathbb{Z}/(m,n)["f(x,y) = xy"', from = 1-1, to = 2-1]["\otimes", from = 1-1, to = 1-2]["\tilde{f}", fro$