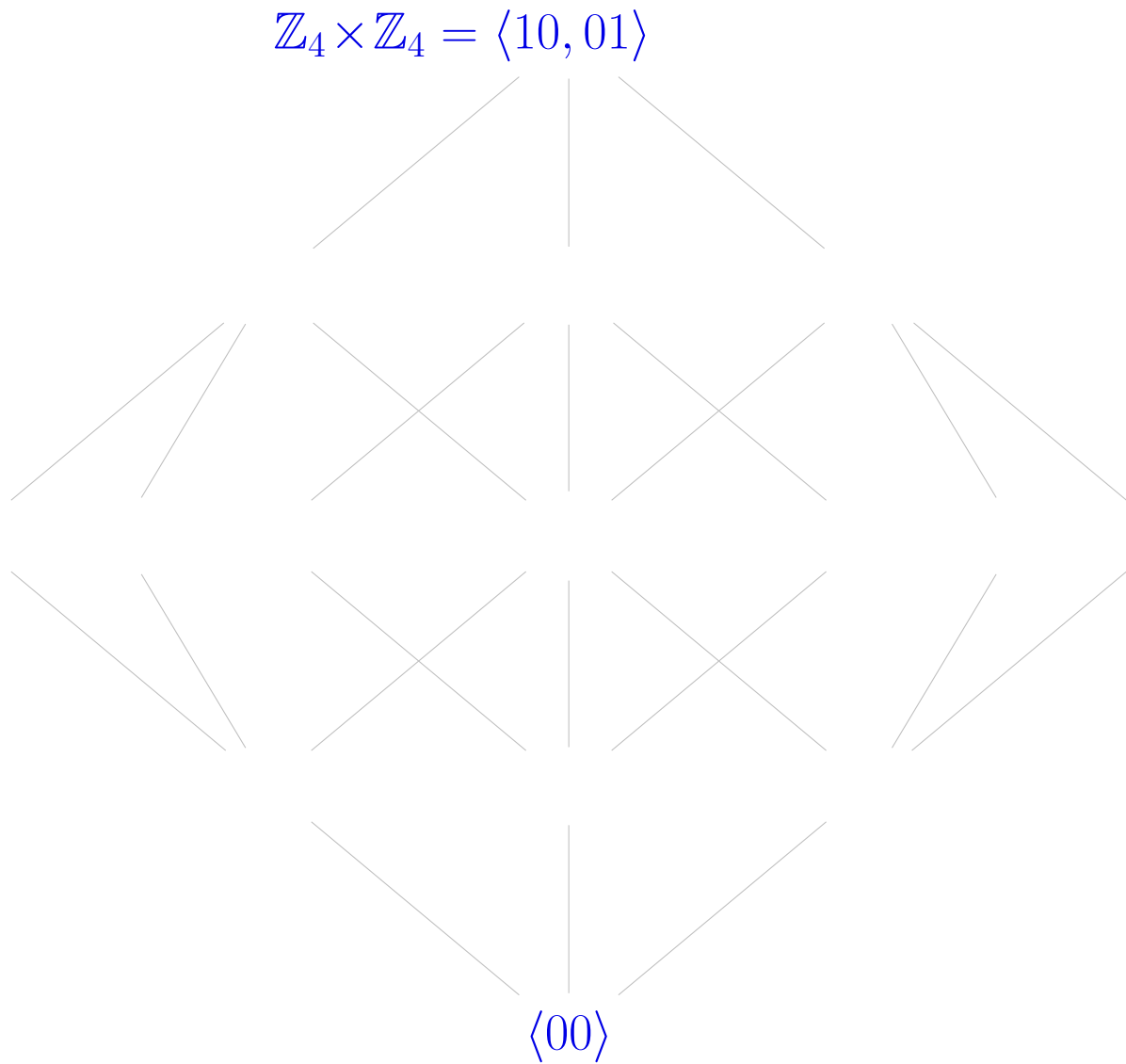


# Supplemental material: Visual Algebra (Math 4120), HW 13

#1: Subring lattice of  $R = \mathbb{Z}_4 \times \mathbb{Z}_4$ . Each subgroup is colored based on whether it is an ideal, subring but not an ideal, or subgroup that is not a subring.



#1: Subring lattice of  $R = \mathbb{Z}_6 \times \mathbb{Z}_3$ . Each subgroup is colored based on whether it is an ideal, subring but not an ideal, or subgroup that is not a subring.

$$\mathbb{Z}_6 \times \mathbb{Z}_3 = \langle 10, 01 \rangle$$

