

Math 542-Modern Algebra II

Taylor Lee

February 7, 2014

Solution:

$$\mathbb{Z}_{144}$$

$$\mathbb{Z}_{72} \times \mathbb{Z}_2$$

$$\mathbb{Z}_{36} \times \mathbb{Z}_2 \times \mathbb{Z}_2$$

$$\mathbb{Z}_{36} \times \mathbb{Z}_4$$

$$\mathbb{Z}_{18} \times \mathbb{Z}_2 \times \mathbb{Z}_2 \times \mathbb{Z}_2$$

$$\mathbb{Z}_{48} \times \mathbb{Z}_3$$

$$\mathbb{Z}_{24} \times \mathbb{Z}_6$$

$$\mathbb{Z}_{12} \times \mathbb{Z}_{12}$$

$$\mathbb{Z}_{12} \times \mathbb{Z}_6 \times \mathbb{Z}_2$$

$$\mathbb{Z}_6 \times \mathbb{Z}_6 \times \mathbb{Z}_2 \times \mathbb{Z}_2$$