Name: June 30, 2017 MAS 4301.8385 Cyr

Quiz 5

You must give complete, mathematically correct proofs to receive full credit!!

Problem 1. (5 points) How many elements of order 9 does $\mathbb{Z}_3 \oplus \mathbb{Z}_9$ have? Justify your answer.

Problem 2. (5 points) Is $\mathbb{Z}_{10} \oplus \mathbb{Z}_{12} \oplus \mathbb{Z}_6 \cong \mathbb{Z}_{60} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$? Justify your answer.