

HW 11**Due: Wednesday, April 23**

Do 2/81, 82i and ii, 85 (ℤ means $\mathbb{Z}/n\mathbb{Z}$), 86i, 90, 91, and the following:

- A. Use the 1st Isomorphism Theorem to prove that if G is cyclic of order n , then $\mathbb{Z}/n\mathbb{Z} \cong G$.
- B. Show that $\mathbb{Z}^2 / \langle (5, 8) \rangle \cong \mathbb{Z}$.
- C. Show that $\mathbb{Z}^2 / \langle (16, 6) \rangle \cong \mathbb{Z} \times \mathbb{Z}/2\mathbb{Z}$.