Russ Johnson
Reading Assignment 16
March 20, 2013

In Activity 26.1 we investigated the operation table of the direct product of the two groups $\mathbb{Z}_2$ and $\mathbb{Z}_3$. From this operation table we see things that we might expect to be true. The identity of $\mathbb{Z}_2 \oplus \mathbb{Z}_3$ contains the identity of $\mathbb{Z}_2$ and the identity of $\mathbb{Z}_3$. The operation of $\mathbb{Z}_2 \oplus \mathbb{Z}_3$ is the operation of $\mathbb{Z}_2$ applied to the first element in the pair and the operation of $\mathbb{Z}_3$ applied to the second element in the pair. In this activity we also constructed a subgroup of $\mathbb{Z}_2 \oplus \mathbb{Z}_3$ that contained every element of $\mathbb{Z}_3$.