1. Homework, week 1, due September 15

1. (Linear diophantine equations) Let $a, b, c \in \mathbb{Z}$. Give necessary and sufficient conditions for the existence of a solution to the diophantine equation

$$ax + by = c$$

with $x, y \in \mathbb{Z}$.

2. Exercises 1.1, 1.2, and 1.3 in the Miles Reid book.