

## Functions (Section 2.3) Part 2

### CS-24, Dr. Ostheimer

#### 1. LEARNING OBJECTIVES

- to get to know each other and start setting up study partners;
- to practice reading the dense mathematical texts;
- to learn the concepts in Section 2.3.

#### 2. RESOURCES

You will need your index cards with the definitions of *function*, *one-to-one*, *onto* and *one-to-one correspondence*. You will also need your Functions Part 1 group work.

#### 3. YOUR QUESTIONS

- (1) In order for a relation  $R$  to be a function, which of the pretend characteristics must it have? For example, must it be tall, dark and handsome?
- (2) In order for a relation  $R$  to be a one-to-one function, what characteristics must it have?
- (3) In order for a relation  $R$  to be an onto function, what characteristics must it have?
- (4) In order for a relation  $R$  to be a one-to-one correspondence, what characteristics must it have?
- (5) For each of the relations  $R_1, \dots, R_5$ :
  - Is it a function?
  - If it is a function:
    - Is it one-to-one?
    - Is it onto?
    - Is it a one-to-one correspondence?