

First Name \_\_\_\_\_ Last Name \_\_\_\_\_ Date \_\_\_\_ – \_\_\_\_ – \_\_\_\_ Period \_\_\_\_ Score \_\_\_\_

**Learning Objectives.**

- State the definition of the domain and the range of a function
- Find the domain and the range of a given function

**Do Now.** *Work on the following problems when the teacher is taking attendance and returning works.*

1. In the following surveys, what are the set of input data?

(a) The height of all human beings on the Earth.

(b) The height of all Americans.

(c) The height of all Americans below age 10.

2. Suppose  $x$  is the width of a rectangle with length 5. The area of the rectangle can be expressed as  $5x$ .

(a) As an algebraic expression, what  $x$ -values are allowed to plug into  $5x$ ? What are the possible outputs?

(b) However, in the view of a rectangle, what  $x$ -values are allowed to plug into  $5x$ ? What are the possible outputs?

3. Does each of the following relations form a one-to-one correspondence? Explain why if it doesn't, then propose a revision that forms a one-to-one correspondence.

(a) student v.s. student ID number

(b) biological son v.s. biological father