

## Problem Solving Process – Handshake and Fence Post Activity

### Steps of the Problem Solving Process:

1. Understand the problem:
  - a. What data or information do you know?
  - b. What is not known?
  - c. What are the conditions?
  - d. What do you have to find?
2. Plan the solution:
  - a. Use pictures, charts, graphs, systematic lists, or act out the solution to help you devise a plan to solve the problem
3. Carry out the plan:
  - a. Using your plan, show your work and your solution
4. Review and discuss your solution:
  - a. Reflect on your solution

**Handshake Problem #1:** Assume there are 20 people in the room, including you. You must shake hands with everyone else in the room. How many hands will you shake?

A. Use the problem solving process to solve Handshake Problem #1.

#### 1. Understand the problem:

- a. What data or information do you know?
- b. What is not known?
- c. What are the conditions?
- d. What do you have to find?

#### 2. Plan the solution:

- a. Use pictures, charts, graphs, systematic lists, or act out the solution to help you devise a plan to solve the problem.
- b. What assumptions did you make, if any?

**3. Carry out the plan:**

- a. Using your plan, show your work and your solution

# of handshakes = \_\_\_\_\_

**4. Review and discuss your solution:**

- a. Reflect on your solution.

B. What if there were 50 people in the room? 100 people?  $n$  people?

# of handshakes if there were 50 people = \_\_\_\_\_

# of handshakes if there were 100 people = \_\_\_\_\_

# of handshakes if there were  $n$  people = \_\_\_\_\_