## Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Lesson 4: Double Trouble**

After displaying your great talent, your boss has asked you to not only manage one port, but two. You have to use the skills you have learned to secure both of the ports. Try to have the lowest security and annoyance level for both of the ports. Good luck!

**Doing the Science**

1. Start the Zero Sum Security Simulation by clicking on the “Sim” tab.

1. Read about the threat level provided on the screen.
2. Move guards to staging area (upper-right hand corner box area).
3. Drag and release security guards to different areas to best protect the port.
4. Dragging and releasing a security guard to the top right picture will transfer security guards to the other port if more manpower is needed.
5. Click on “Switch” at any time to switch between the ports.
6. After you switch to the second port, the security guard will be on the upper right boardwalk. Click and drag the security guard to the desired location.
7. After you are satisfied with the guards’ positions, click on “Run” to view the security and annoyance levels. Click on “Personal Craft”, “Cargo Ships”, “Cruise Ships”, and “Overall” to view the security and annoyance level for each category. Record these levels into Table 1 below.
8. Count and record the number of security guards in each area into the table.

**Table 1.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Security Guard Setup | Type of Ship | Security Level | Annoyance Level | Number of Guards |
| Entry | Luggage or Cargo | Board-walk | White Walkway | Ocean |
| Port ExPort | Personal Craft |  |  |  |  |  |  |  |
| Cargo Ships |  |  |  |  |  |  |  |
| Cruise Ships |  |  |  |  |  |  |  |
| Overall |  |  |  |  |  |  |  |
| Port ImPort | Personal Craft |  |  |  |  |  |  |  |
| Cargo Ships |  |  |  |  |  |  |  |
| Cruise Ships |  |  |  |  |  |  |  |
| Overall |  |  |  |  |  |  |  |

**Do You Understand?**

1. What was the best strategy for managing the security guards of both ports?

2. Was it better to keep an equal number of security guards at both ports or have one port have more guards and one port have fewer guards?