# Record Sheet for Modeling the Spread of a Disease

Initially infected person \_\_\_\_\_\_\_\_\_

Stage one newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage two newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage three newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage four newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage five newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stage six newly infected people \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total number of people infected at the end of:

Stage one: \_\_\_\_

Stage two: \_\_\_\_

Stage three: \_\_\_\_

Stage four: \_\_\_\_

Stage five: \_\_\_\_

Stage six: \_\_\_\_

**Reflection**: It’s possible to do a careful mathematical analysis of the results, but for now, just use your powers of logic and critical thinking to discuss their meaning.

1. What do the results tell you about how a disease can spread through a population?
2. The transmission of many diseases can be stopped by simple steps such as hand washing, or in some cases through vaccination. How would the spread be different if many people took these steps? Could the disease be completely eradicated?
3. We didn’t have to define the carrier as someone with a disease. For example, we could have defined the carrier to be someone who starts spreading a rumor, or a computer virus. What other kinds of human interactions can be modeled by this activity?
4. This is one simple example of how we can analyze data quantitatively. How does this type of analysis help improve your understanding of the situation being modeled?