### Life Science

A scientist was studying how temperature affects viruses. The chart at the right shows the results.

**a.** Graph the ordered pairs (temperature, number) on a coordinate plane.

**b.** What appears to be the relationship between temperature and viruses?

The graph shows that the number of viruses decreases as the temperature increases. The number of viruses is a function of the temperature.

**How long would it take all of the students in your school to complete one cycle of "the wave"?** In the Mini-Lab, you will do an experiment to estimate the time.

### Hands-On Mini-Lab

**Work as a class.**

**Try This.**
- Begin with five students, sitting in a row.
- At the timer’s signal, the first student stands up, waves his/her arm overhead, and sits down. Each student repeats the wave. When the last student sits down, the timer records the time in seconds.
- Repeat for 10, 15, 20, and 25 students.

**Talk About It.**
1. Graph the ordered pairs (number of students, time) on a coordinate plane.
2. How long would it take 30 students to complete the wave? Does the number of students in your school? If so, how many students are there? If not, why?
3. Complete the sentence: The time it takes to do the wave is a function of ____________ the number of students.

### Using the Mini-Lab

Make sure students stand and wave sequentially (not simultaneously) when doing "the wave." Encourage them to speed up or slow down the sequence when going through a second set of trials, beginning again with 5 students, then 10, and so on. Is time still a function of number of participants?