

Keep It Rolling!

Procedure

- 1. Measure** Work with a partner. Measure 2 m from the wall. Mark this position with a line of masking tape on the floor.
- 2. Record Data** Record your measurement in the blank under *Short Distance*.

	Short Distance: _____	Long Distance: _____
Roll 1 Time		
Roll 2 Time		

- 3. Experiment** Slowly roll a ball straight toward the wall. This is *Roll 1*. Have your partner start a stopwatch just as the ball crosses the tape and stop the stopwatch just as the ball strikes the wall. Record the time in the chart.
- 4. Collaborate** Change places with your partner. Have your partner roll the ball faster than you rolled it. Time this roll. Record this time as *Roll 2* in the chart.
- 5. Use Variables** Take several steps back from the line of masking tape. Mark a second line with masking tape. Measure the distance between the wall and the second line. Record this distance under *Long Distance*. Repeat steps 3 and 4 for the longer distance.

Conclusion

Write the answers to the questions below.

1. **Collaborate** For each distance, compare the time of your roll to the time of your partner's roll. Whose rolls took less time?

2. **Analyze Data** How does distance affect the time it takes the ball to reach the wall?

Investigate More!

Solve a Problem The fire department wants to shorten the time it takes fire trucks to travel from the firehouse to a fire. Describe two ways that fire trucks could reach fires faster.

