**Activity 4.2.3A Pace vs Speed on a Treadmill**

**Pace** is a method to describe one’s speed. Runners use pace to describe the rate of their movement by the number of minutes it takes to cover a mile. Pace is typically given in minutes and seconds.

**Speed** is the measure of how fast an object is moving. It applies to all moving objects such as a cycle, car, bus, train, or an airplane. The units of speed are miles per hour.

Example: If you are running and take 15 minutes to complete a mile, your pace is 15 (minutes per mile) while your speed is 4 miles per hour.

Pace and speed both describe how fast you are moving. Runners generally use pace, while bicyclists use speed.

1. You will gather data on Pace vs Speed using a treadmill. Fill in the table below.
2. Enter your data into the lists L1 and L2 using the STATS key, 1:edit
3. Make a stats plot. Be sure to set an appropriate window.
4. Use the STATS key, and select A:PwrReg for Power Regression. Write the equation below.
5. Sketch the function.

Power function:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Min/Mile Pace | MPH |
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Miles Per hour

Min Per Mile Pace