***Charting Speed Using Distance-Time Graphs Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

Remember the formula for speed… Speed = distance/time S = d/t

Remember how we calculate averages… Average = (sum of values)/(# of values)

Complete the table below, rounding average time and average speed to the nearest tenth:

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| --- | --- | --- | --- | --- | --- | --- |
| Distance | Time 1 (sec) | Time 2 (sec) | Time 3 (sec) | Average Time (sec) | S = d/t… so What is your equation? | Average Speed (ft/sec) |
| 5 ft | 2.4  | 2.3 | 2.5 |  |  |  |
| 10 ft | 5.2 | 5.0 | 5.1 |  |  |  |
| 15 ft | 7.7 | 7.3 | 7.4 |  |  |  |
| 20 ft | 10.1 | 10.6 | 10.5 |  |  |  |
| 30 ft | 17.4 | 16.8 | 16.9 |  |  |  |
| 50 ft | 25.4 | 26.7 | 26.1 |  |  |  |

Now, take your data from the table above and plot your average time and distances on the graph below. Make sure you label your graph and your x and y axis with the right numerical values and units. When you are finished, draw a line of best fit connecting your points.

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Distance

(ft)

Time (sec)

What does the slope of the line represent in terms of the speed? \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_