

**Activity 8-1C Graphing motion data**

Imagine you recorded the position of the lawnmower at 5 s time intervals as the groundskeeper cut the grass on your school's football field. In this activity, you will sketch a position-time graph and draw a best-fit line that represents the given data.

**What to Do**

1. With a ruler, draw an x-axis and a y-axis on a piece of graph paper. Label the y-axis Position. Be sure to include the units (m) and the direction [N]. Label the x-axis Time. Be sure to include the unit (s). Scale the axes so that the graph takes up at least half the page.
2. Plot the data from the table on your graph.
3. Draw a best-fit straight line through your plotted data points. Give your graph a title.

Time (s)	Position (m [N])
0	0
5	14
10	27
15	34
20	50
25	64
30	73
35	88
40	100

**What Did You Find Out?**

1. (a) Did your best-fit straight line go through all your plotted points?

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- (b) What does your answer to (a) indicate about the motion of the lawnmower?

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