

## Rate of Memorization

Instructions: Four lists of three-digit numbers are given. Collect the data necessary to determine your learning rate:

1. Spend one minute studying one of the lists of numbers. (Measure the time carefully. A friend can help.)
2. Quiz yourself on how many of the numbers you have memorized by writing down as many of the numbers as you remember in their correct order. (You may skip over numbers you don't remember and obtain "credit" for numbers you remember later in the list.) Put your quiz aside to be graded later.
3. Spend another minute studying the same list.
4. Quiz yourself again.
5. Repeat the process ten times (or until you have learned the entire list). Grade your quizzes (a correct answer is having a correct number in its correct position in the list). Compile your data in a graph with  $t$ , the amount of time spend studying, on the horizontal axis, and  $L$ , the fraction of the list learned, on the vertical axis.
6. Use this data to approximate your learning equation and compare your data with the predictions of the model. Explain how you got your answer.
7. Estimate how long it would take you to learn a list of 50 and 100 three-digit numbers.
8. What did you notice about the way you learned the numbers?
9. Repeat the process on two of the other lists. Does your learning equation stay constant or does it improve with practice?

	<u>List 1</u>	<u>List 2</u>	<u>List 3</u>	<u>List 4</u>
1	457	167	733	240
2	938	603	297	897
3	363	980	184	935
4	246	326	784	105
5	219	189	277	679
6	538	846	274	011
7	790	040	516	020
8	895	891	051	013
9	073	519	925	144
10	951	306	102	209
11	777	424	826	419
12	300	559	937	191
13	048	911	182	551
14	918	439	951	282
15	524	140	643	587
16	203	155	434	609
17	719	847	921	391
18	518	245	820	364
19	130	752	017	733
20	874	552	389	735