

Section 1: Linear Functions

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**DO NOT POLLUTE! AVOID PRINTING, OR PRINT 2-SIDED MULTIPAGE.**

In this homework you will review some basic topics that you need to know in order to understand what is AI and how it works. Each problem is worth 10 points.

**Problem 1.** Sketch the following dataset as a collection of points in a plot.

Subject	Age	Scrolling time 2
1	14	360
2	16	350
3	20	330
4	22	320
5	24	310
6	26	300
7	31	275
8	32	270
9	40	230
10	43	215
11	47	195
12	55	155
13	63	115
14	72	70
15	83	15
16	85	5

**Problem 2.** Provide an equation for the line that best describes the dataset above.

**Problem 3.** According to your line function, how many minutes does a 35 person spend scrolling?

**Problem 4.** According to your line function, how many minutes does a 86 person spend scrolling?

**Problem 5.** Include these new points in your plot. Do they agree with the same pattern as the original samples?

**Problem 6.** What is the derivative of this line function?