Math 104Q

Group Work on Lines: Life Expectancy

Many companies utilize life expectancy data to calculate items such as life insurance premiums or retirement benefits. The IRS is no exception. Use the data in the following table to answer the questions below.

IRS Life Expectancy Table

Your current Age	Number of Additional years you are expected to live
35	47.3
40	42.5

(Source: General American Life Insurance Company inc.)

1. The data given in the table is (approximately) linear. Using ordered pairs of the form (current age, number of additional years you are expected to live), find a linear function that fits the data for the ages given. Write your answer in slope-intercept form.

Answer:

2. Graph the function on a separate sheet of graph paper and be sure to label the axes. Discuss the meaning of the slope and y-intercept. What do these numbers refer to in terms of life expectancy?

The slope of the line is **and it means that**

The y- intercept of the line is **and it means that**

3. Using the function you wrote in question 1, calculate the number of additional years that a 72 year-old person can expect to live. Does your graph reflect this?

4. What is the result of adding together the x and y coordinates of any ordered pair in this situation?