**Question #31 gives a table of data and the QUESTION is WHAT IS THE MEANING OF THE SLOPE?**

**The Table in the question is VERTICAL but I have typed it in Horizontal to save space.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Years since 1930**  **(year 0)** | **10** | **20** | **30** | **40** | **50** | **60** | **70** | **80** |
| **Life Expectancy** | **62.9** | **68.2** | **69.7** | **70.8** | **73.7** | **75.4** | **77** | **78.7** |

SLOPE is: m = so if it is LINEAR (that is what slope is)

You should be able to pick any two points: = = .53

BUT: it is usually better If you **Pick the First and Last Points:**

= ~ .225 or .23

You ***Could*** enter the data

**On the TI-84:**

[STAT]

{1: Edit}

Enter data in **L1** (Column) Years: 10, 20, 30, 40, 50, 60, 70, 80

Enter data in L2 (Life): 62.9, 68.2, etc

[STAT] {CALC}

{4: LinReg ax + b}

It uses the (L1 and L2 List as the default (But you can change it if necessary)

{**Calculate**}

It returns the answer of ‘a’ = .207

And ‘b’ = 62.6

Answer A is a true statement: 62.9 - .2 = 62.7 Initial value – BUT THAT IS NOT SLOPE!

Answer B is a FALSE statement

Answer C Life expectancy increase about 6.7 each year is FALSE.

That is about the change from year 10 to 20

**Answer D is the Correct answer: SLOPE is .2**

Knowing the SLOPE and intercept, they could have asked you to

PREDICT the Expectancy at some other time.