

Scatter Plots on the TI-73

<u>Step 1: Clear the memory on the calculator</u>
<u>Step 2: Enter data</u> Press: {list} Input x values in L1 and y values in L2
<u>Step 3: Create Graph</u> Press {2 nd } {y=} Press {Enter - move arrows to turn plot on ('on' should be highlighted)} Press {zoom 9}
<u>Step 4: Calculate the Line of Best Fit</u> Press {2 nd } {list} Use arrow to move to CALC Select 5: LinReg (ax+b) Hit Enter twice
<u>Step 5: Plot line of Best Fit</u> Press {y= then 2 nd apps} Select 3: Statistics Use arrow to move to EQ Select 1: RegEQ Press {graph} *** You could also enter it manually but it may not be as accurate
<u>Step 6: Trace the Line of Best Fit</u> Press {trace} Use arrows to bounce from point to point Use down arrow to move up and down the Best Fit Line

Let's Try:

Use the following height and weight data to create a Line of Best Fit and estimate weights. Follow the step by step instructions above.

Name	Height (L1)	Weight(L2)	Name	Height (L1)	Weight(L2)
Lisa	44	47	Meg	48	62
Simone	50	57	Mara	51	47
Meredith	38.5	32	Steph	53	65
Penny	39	42	Callie	50.5	49
Sheila	41	36	Cynthia	46.5	52
Tara	45.5	49	Joy	45	43

Use your line of Best Fit to estimate the following weights.

How much would you expect a first grade girl to weigh for each height given below?

40in _____ lbs

42in _____ lbs

45in _____ lbs

48in _____ lbs

50in _____ lbs

53in _____ lbs

Practice

Use each table of data to create a graph and a line of best fit on your calculator to answer the questions that follow.

Latitude and Average Daily Temperature in July for 10 world cities

Name	Latitude ($^{\circ}$ N)	July Temp. ($^{\circ}$ C)
Oslo	59	7
Berlin	52	18.5
London	51	17
Vancouver	49	17
Tunis	37	26
Tomsk	56	18
Kiev	50	20
Coppermine	67	10
Rome	41	24
Salah	27	37

1. What is the linear equation that represents the July temperature of a city based on its north latitude?
(Round decimals to the thousandth 0.001)

2. What would be the expected July temperature at each of the given latitudes below?

25 $^{\circ}$ N _____ $^{\circ}$ C

54 $^{\circ}$ N _____ $^{\circ}$ C

70 $^{\circ}$ N _____ $^{\circ}$ C

Latitude and Average Daily Rainfall in July for 10 world cities

Name	Latitude ($^{\circ}$ N)	July Rainfall (mm)
Oslo	59	73.6
Berlin	52	57.4
London	51	59.5
Vancouver	49	31.3
Tunis	37	3.3
Tomsk	56	73.6
Kiev	50	77.1
Coppermine	67	31.9
Rome	41	16.3
Salah	27	0.1

1. Write the equation (to the thous.):

2. What would be the expected July rainfall at each of the given latitudes below?

35 $^{\circ}$ N _____mm

45 $^{\circ}$ N _____mm

60 $^{\circ}$ N _____mm

3. Does this graph appear to show more or less correlation than the one above? _____

Use each table of data to create a graph and a line of best fit on your calculator to answer the questions that follow.

Global Temperature by Year 1900-2000

Year	Temp. (°F)
1900	57.20
1910	56.82
1920	56.97
1930	57.13
1940	57.47
1950	56.93
1960	57.16
1970	57.27
1980	57.67
1990	58.08
2000	57.92

1. Write the Linear equation (to the thous.): _____

2. According to this (very limited) data, predict the mean global temperature for the following years.
(Use TBLSET and TABLE, or change your WINDOW values and use TRACE)

2010 _____ 2025 _____ 2050 _____ 2100 _____

North American Population 1986-1995

Year	Population (millions)
1986	346
1987	350
1988	354
1989	358
1990	363
1991	369
1992	374
1993	379
1994	383
1995	388

3. Write the Linear equation (to the thous.): _____

4. Calculate and graph the Exponential Equation (Stat - Calc - ExpReg) AND the Linear Equation. What does each predict for the North American population for the year 1900?

Exponential _____ million Linear _____ million

5. What is wrong with the linear prediction? _____