

<b>a</b>	$x$	23	34	17	23	29	45
	$y$	12	10	14	11	11	8

<b>b</b>	$x$	1	2	3	4	6
	$y$	6	7	8	8	16

$x$	4.5	2	6	4.5	3	1
$y$	2	5	1	3.5	3.5	6

**Note:** If the list contains other numbers, you can clear it by pressing **[STAT]** 4:ClrList and press **[ENTER]**. The home screen displays ClrList. Press **[2nd]** **[1]** **[L1]** and press **[ENTER]**. Press **[STAT]** 1:Edit and press **[ENTER]** to return to the table.

[illegible][illegible]

MATHPRINT CLASSIC  
NORMAL SCI ENG  
FLOAT 0 1 2 3 4 5 6 7 8 9  
RADIAN DEGREE  
FUNCTION PARAMETRIC POLAR SEQ  
THICK DOT-THICK THIN DOT-THIN  
SEQUENTIAL SIMUL  
REAL  $a+bi$   $r\angle\theta(i)$   
FULL HORIZONTAL GRAPH-TABLE  
FRACTION-TYPE:  $\frac{a}{b}$  Uned  
ANSWERS: AUTO DEC FRAC-APPROX  
GO TO 2ND FORMAT GRAPH: NO YES  
STAT DIAGNOSTICS: OFF ON  
STAT WIZARDS: ON OFF  
SET CLOCK 11/20/18 12:30PM

## Chapter 14 / **Example 1**

### Spearman's rank correlation coefficient

To calculate the correlation coefficient

Press **STAT** and **▶** to access the CALC menu.

Select 4:LinReg( $ax+b$ ) and press **ENTER**.

Leave the X List as  $L_1$  and the Y List as  $L_2$  and navigate down to Calculate.

Press **ENTER**.

Xlist:L1  
Ylist:L2  
FreqList:  
Store RegEQ:  
Calculate

Scroll down the calculated values to 'r'.

$$r = -0.956$$

$$\begin{aligned} y &= ax + b \\ a &= -.9558823529 \\ b &= 6.845588235 \\ r^2 &= .9137110727 \\ r &= -.9558823529 \end{aligned}$$


The ranks are

$x$	5	4	3	2	1
$y$	5	4	2.5	2.5	1

Press **STAT** 1:Edit and press **ENTER**

Type the  $x$ -values in the next column.

[illegible]

Press  to move to the next column.

Enter the  $y$ -values in the fourth column.

L1	L2	L3	L4	L5	4
4.5	2	5	5	-----	
2	5	4	4		
6	1	3	2.5		
4.5	3.5	2	2.5		
3	3.5	1	1		
1	6	-----	-----		
-----	-----				

L4(6)=

To calculate the correlation coefficient

Press **STAT** and **▶** to access the CALC menu.

Select 4:LinReg( $ax+b$ ) and press **ENTER**.

Set the X List as L<sub>3</sub> and the Y List as L<sub>4</sub> and navigate down to Calculate.

Press **2nd** **3** to enter  $L_3$  and **2nd** **4** to enter  $L_4$ .

Press **ENTER**.

Xlist:L3  
Ylist:L4  
FreqList:  
Store RegEQ:  
Calculate

Chapter 14 / **Example 1****Spearman's rank correlation coefficient**

Scroll down the calculated values to 'r'.

$$r = 0.975$$

**LinReg**  
y=ax+b  
a=.95  
b=.15  
r<sup>2</sup>=.95  
r=.9746794345