

Exponential Regressions on TI's

Tested on TI-83, TI-83- Plus and TI-84 Plus Silver Edition

1) Press the STAT

```

STAT TESTS
1:Edit...
2:SortA(
3:SortD(
4:ClrList
5:SetUpEditor
    
```

2) Press Enter:

L1	L2	L3	1
-----	-----	-----	

L1(1) =

3) Enter your x and y values into the Screen (This example will use the ordered the values in the picture →)

L1	L2	L3	2
-1	6	-----	
0	2.05	-----	
1	8.8	-----	
2	18.5	-----	
3	33	-----	

L2(6) =

4) Press STAT And scroll right once to highlight "CALC" :

```

EDIT [CALC] TESTS
1:1-Var Stats
2:2-Var Stats
3:Med-Med
4:LinReg(ax+b)
5:QuadReg
6:CubicReg
7:QuartReg
    
```

5) Scroll down to item '0' which says ExpReg

```

EDIT [CALC] TESTS
4:LinReg(ax+b)
5:QuadReg
6:CubicReg
7:QuartReg
8:LinReg(a+bx)
9:LnReg
0:ExpReg
    
```

6) Hit enter twice (first time just gets ExpReg on screen; on second, the TI actually calculates the exponential regression) to see the exponential regression. If you used the numbers on the page up, above you should see the following screen

```

ExpReg
y=a*b^x
a=1.923930724
b=3.053280546
    
```

7) Therefore, the exponential equation that best fits this data is $y = 1.923930724(3.053280546)^x$