



Crickets and Temperature Exercise

Background

Crickets chirp to attract their mates. It is a common fact that there is a relationship between the number of chips per second and the temperature of their environment. The dataset for this project gives average recorded chips per second at temperatures ranging from 76 degrees to 93 degrees in Fahrenheit. The known chirp frequencies range from 14 to 20 per second in our dataset. What we would like to know is what temperatures would we expect to hear 21, 22, and 23 chirps per second?



Directions

1. Obtain and open the file **Crickets.xlsx** from the Exercise Area of the web site.
2. Create a Scatter Chart from the known values of the Chirps and Temperatures in the A and B columns.
3. Change to the **Layout 1** option in the Chart Layouts area of the Chart Tools / Design Ribbon.
4. Use appropriate words to title the chart and create axis titles for the X and Y areas.
5. Add a trendline by experimenting with the options and finding the line of best fit.
6. Extent the trendline forward 3 periods to reflect our unknown values visually.
7. Display the equation on the chart.
8. Increase the decimal precision to 4 places.
9. Reformat the equation into a formula and plug it into cell B11 to see how what temperature we might expect to hear 21 chirps per second.
10. Use the fill handle to drag the formula in B11 down through B13 to see the temperatures for 22 and 23 chirps per second.

Need Help?

This exercise has a corresponding solution file that visually depicts what your project should look like. Have a look at this first to see if you can find some hints. You can also review the movies on regression analysis in the GatorSite Exercise Area as they use the same techniques as this project in a different context. Remember that you can always contact your instructor if you have additional questions too.