1.2 Data Analysis: Peer Review

Can temperature be predicted by counting cricket chirps?

Many outdoors enthusiasts claim that air temperature (F) can be estimated by adding the number 40 to the number of cricket chirps counted in 15 seconds. Is there scientific evidence to support this idea?

Data and Observations

A group of students collected the data below. They concluded that the claim is correct.

Effect of Temperature on Chirping	
Temperature (F)	Cricket chirps (per min)
68	121
75	140
80	160
81	166
84	181
88	189
91	200
94	227

Think Critically

1. **Convert** the number of chirps per minute to the number of chirps per 15 seconds
2. **Plot** the number of chirps per 15-second interval vs. Fahrenheit temperature. Include a best fit line on your graph. Use a graphing application to graph the information. Include all of the important labels that are necessary for scientific graphs.
3. **Write** the equation for the best-fit line. (Remember y=mx+b). Take a screenshot of your graph and put it in a Google document entitled 1.2 Peer Review.
4. **Peer review.** Do the results support the students' conclusion? Explain in a paragraph that you include with your graph.