

Name: \_\_\_\_\_

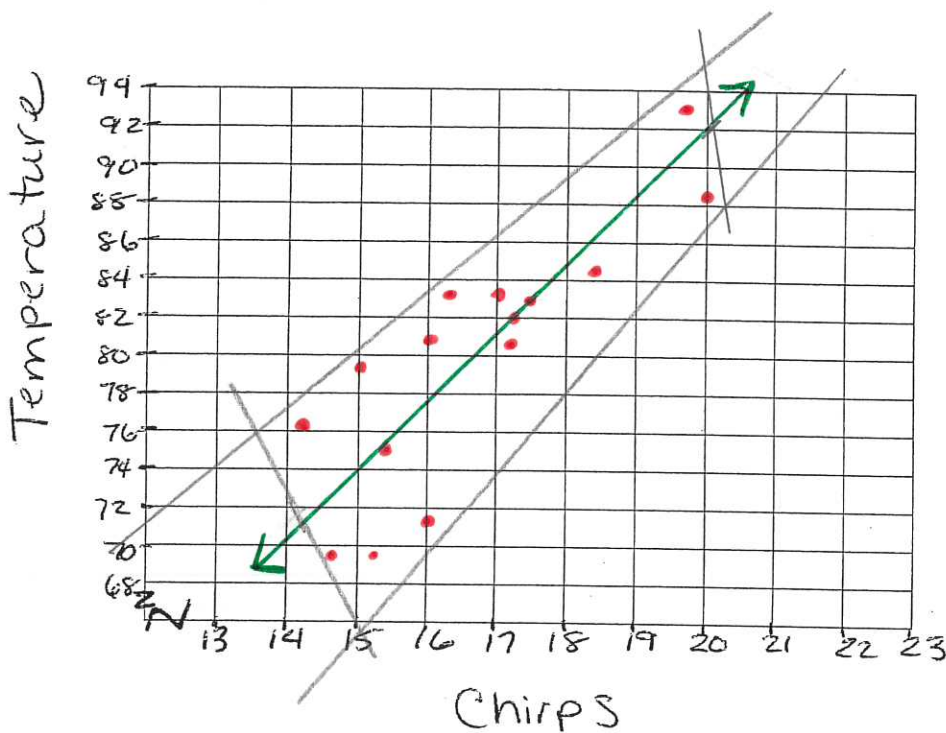
Hour: \_\_\_\_\_

Linear Regression Guided Notes...

Overall Question: Is there a correlation between the number of chirps a cricket makes and the temperature?

Scatter plot:

Chirps	Temp
20	88.6
16	71.6
19.8	93.3
18.4	84.3
17.1	80.6
15.5	75.2
14.7	69.7
17.1	82
15.4	69.4
16.2	83.3
15	79.6
17.2	82.6
16	80.6
17	83.5
14.4	76.3



Correlation:

$(15.5, 75.2) (17.2, 82.6)$

$m = 4.35$

$75.2 = 4.35(15.5) + b$

$75.2 = 67.425 + b$

$7.78 = b$

$y = 4.35x + 7.78$

$y = 3.29x + 25.23$

$r = .835 \approx .84$

strong positive

What is the correlation of the cricket data and why?

Positive correlation, As the chirps increase, the temperature increases as well.