**Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Exit Slip – Linear Application Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_**

**It is a surprising biological statistic that most crickets chirp at a rate that increases as the temperature increases. For the snowy tree cricket, the relationship between temperature and chirp rate is so reliable that this type of cricket is called the thermometer cricket. Use the information in the table below to help you answer the following questions.**

**(Let the chirp rate = x and temperature = y)**

1. **Write a linear equation to represent the data in the table.**
2. **What does the rate of change mean in this scenario?**

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1. **What would the expected temperature be if we recorded 225 chirps?**
2. **How many chirps would we expect to hear if the recorded temperature was** $73^{o}F$**?**
3. **At what temperature would we expect to hear zero chirps?**