

## 4.8 Problem Solving

Ex. 1 Crickets chirp about 30 times per minute when the temperature is  $48^{\circ}\text{F}$ , but 110 times per minute when the temperature is  $68^{\circ}\text{F}$ .

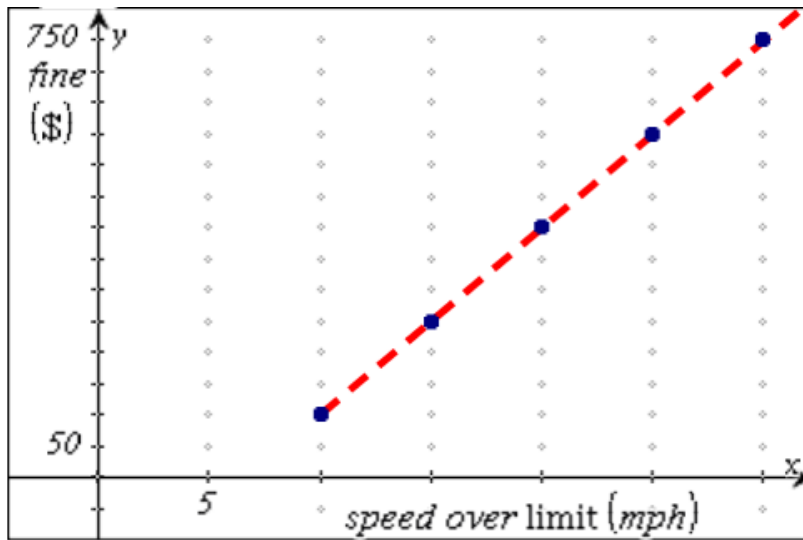
- Write an equation for this relationship.
- Predict the number of chirps per minute when the temperature is  $80^{\circ}\text{F}$ .
- Suppose you hear crickets chirping 200 times per minute. What is the temperature?

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Ex. 2 You are the judge in traffic court. A new judge asks you to explain how to determine the fines. What is your explanation?



Ex. 3 A 9-ounce cup of freshly squeezed orange juice costs \$1.25. A 12-ounce cup costs \$1.60. Assuming that cost vs. volume is linear, how much would a 16-ounce cup cost?



Ex. 4 Corey has played 11 basketball games and has a 17-point average.

- a) How many points would he need to score in his next game to raise his average 1 point? 2 points?
- b) Determine the equation of the line relating increase in average desired and points needed.
- c) Explain the meaning of the slope and y-intercept.



# Homework: Handout

