

Practice

Integration: Statistics**Modeling Real-World Data Using Scatter Plots**

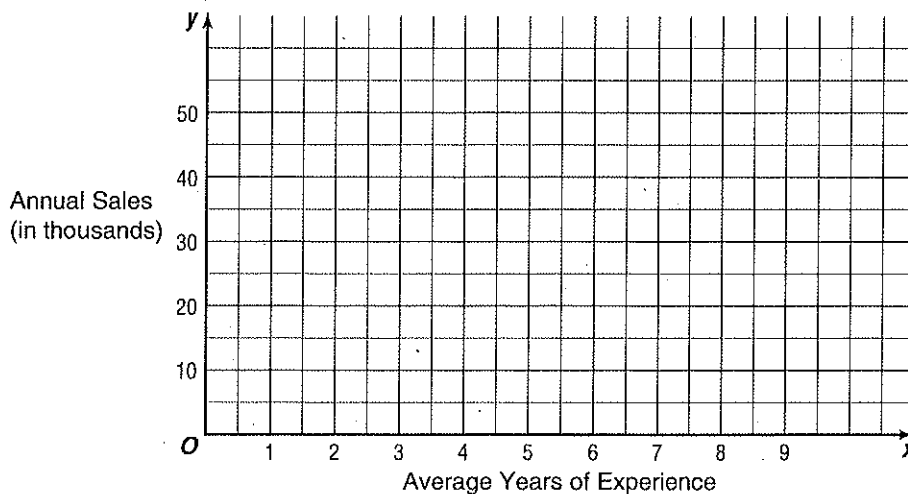
According to a certain linear prediction equation, a person 25 years old needs 2400 calories of food intake a day. A person 30 years old needs 2300 calories. Let x stand for age in years and y stand for calories.

1. Find the slope of the prediction equation.
2. Find the y -intercept of the prediction equation. What does it measure?
3. Write the prediction equation.
4. Predict the caloric needs of a person who is 34 years old.

The Cody Company ran a study on its sales force and learned that the average number of years of experience for each sales team was in direct relation to annual sales volume. Use the data below to answer the following.

Annual Sales (in thousands)	46	35	51	42	33	50	30
Average Years of Experience	6	4	8	5.5	3	7	2.5

5. Draw a scatter plot to show how years of experience per sales team and annual sales are related.



6. Find a prediction equation to show how years of experience and annual sales are related.