

Writing Equations to Describe Functional Relationships (Table → Equation)

Name:

Date:

Vocabulary Review:

In your own words, define each of the following vocabulary terms.

- Equation
- Rate of Change
- Constant
- Independent Variable
- Dependent Variable

Apply New Learning:

1. What method can be used to find a rule when given a table of values?
2. What strategies can be used to write an equation based on a table of values?
3. How can a graphing calculator be used to determine the equation that matches a table of data?

4(a). Kayla was so excited to get a summer job that she forgot to ask how much she would be paid per hour. She just received her first paycheck, and it shows the time worked (hours) and the amount of money earned (dollars) for the month. Use this information to help Kayla figure out how much she is paid per hour.

	Time Worked (Hours)	Amount of Money Earned (Dollars)
Week 1	16	116
Week 2	22	159.50
Week 3	28	203
Week 4	32	232

First write the equation that represents this table of data. Next state how much Kayla is paid per hour.

4(b). Kayla hopes to save money to buy a car. She needs to earn \$2,500 by the end of the summer. She has 8 weeks left to earn a total of \$2,500. How many more hours does she need to work this summer?

4(c). How many hours should she plan to work each week for the next 8 weeks (assume she wants to work the same number of hours each week)?

5(a). Geraldine loves to bake, but recently she has to bake things much longer than expected. Geraldine worries that her oven is not heating to the right temperature and decides to use an oven thermometer to test her oven. Geraldine sets the oven to five different temperatures and checks to see the actual temperature the oven reaches on the oven thermometer. She recorded her findings in a table:

Temperature Setting	Actual Oven Temperature
200°	170°
250°	195°
300°	220°
350°	245°
400°	270°

What is the equation that represents this table of data?

5(b). If Geraldine wants to bake cookies at 375°, what temperature should she set her oven to?