

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



PRACTICE



TUTORIAL

## Practice & Problem Solving



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In 12–15, identify the independent variable and the dependent variable.

12. The pages,  $p$ , in a book and the weight,  $w$ , of the book
13. The number of hamburgers,  $h$ , sold and the dollar amount of sales,  $s$ , taken in
14. The pounds,  $p$ , of flour you buy and the number of bread loaves,  $b$ , you want to make
15. The temperature,  $t$ , of water and the number of minutes,  $m$ , the water is in the freezer
16. Write your own situation. Identify the independent and dependent variables.
17. Name at least two independent variables that could result in a change in the price of a basket of apples.
18. **Critique Reasoning** You spend  $c$  dollars for  $p$  identical pairs of pants. A friend claims that because  $c$  increases if you increase  $p$ , and  $p$  increases if you increase  $c$ , either  $c$  or  $p$  could be the independent variable. Is your friend right or wrong? Explain.
19. The number of oranges in a bag and the cost of the bag of oranges are related. What is the independent variable in this relationship? Explain.
20. The dependent variable  $g$  represents the growth of a plant. What variables can represent independent variables in this situation?



In 21 and 22, use the table at the right.

21. The table shows distances driven by the Williams family each day of their vacation. What is an independent variable that would affect the total distance they drove each day?
22. Name at least two dependent variables that could affect the amount of money the Williams family spends on meals during their vacation.

**Family Vacation**

Day	Distance
1	480 mi
2	260 mi
3	40 mi
4	150 mi
5	100 mi
6	320 mi

23. The cost of a salad at a restaurant depends on many factors. List at least two independent variables that could affect the cost of a salad.
24. Julian drove from New York to Florida. List at least two independent variables that could affect the number of days Julian took to make the trip.
25. The number of incorrect answers and the score on a math test are related. What is the dependent variable in this relationship? Explain.
26. **Higher Order Thinking** Write a situation in which time,  $t$ , is an independent variable. Then write a situation in which time,  $t$ , is a dependent variable.

## Assessment Practice

27. Jonas is concerned about the amount of water he uses to wash his laundry. He made a table to show the number of gallons of water used by different washing machines to complete a load of laundry.

Washing Machine	Gallons of Water
Older Top Loading	40
New Standard Model	27
Energy Efficient	14

### PART A

Name two independent variables that could affect the amount of water Jonas uses to do laundry.

### PART B

Identify the dependent variable and the independent variable in this sentence.

Jonas records the total cost,  $c$ , of the water he uses and the number of gallons of water,  $g$ , he uses.

