**EVALUATING EXPRESSIONS** Evaluate the expression.

44. $\dfrac{2y - x}{x}$ when $x = 1$ and $y = -4$

45. $\dfrac{4x}{3y + x}$ when $x = 6$ and $y = -8$

46. $\dfrac{-9x}{y^2 - 1}$ when $x = -3$ and $y = -2$

47. $\dfrac{y - x}{xy}$ when $x = -6$ and $y = -2$

48. **WRITING**  Tell whether division is commutative and associative. Give examples to support your answer.

49. **TAKS REASONING** Let $a$ and $b$ be positive numbers, and let $c$ and $d$ be negative numbers. Which quotient has a value that is always negative?

Ⓐ $\dfrac{a}{b} \div \dfrac{c}{d}$  Ⓑ $\dfrac{a}{c} \div \dfrac{b}{d}$  Ⓒ $\dfrac{c^2}{a} \div \dfrac{b}{d}$  Ⓓ $\dfrac{a}{cd} \div b$

50. **CHALLENGE**  Find the mean of the integers from $-410$ to $400$. *Explain* how you got your answer.

51. **CHALLENGE**  What is the mean of a number and three times its opposite? *Explain* your reasoning.

## PROBLEM SOLVING

52. **SPORTS**  Free diving means diving without the aid of breathing equipment. Suppose that an athlete free dives to an elevation of $-42$ meters in 60 seconds. Find the average rate of change in the diver's elevation.

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53. **WEATHER**  The daily mean temperature is the mean of the high and low temperatures for a given day. The high temperature for Boston, Massachusetts, on January 10, 2004, was $-10.6°C$. The low temperature was $-18.9°C$. Find the daily mean temperature for that day.

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54. **MULTI-STEP PROBLEM**  The table shows the changes in the values of one share of stock A and one share of stock B over 5 days.

| Day of week | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| Change in share value for stock A (dollars) | $-0.45$ | $-0.32$ | $0.66$ | $-1.12$ | $1.53$ |
| Change in share value for stock B (dollars) | $-0.37$ | $0.14$ | $0.59$ | $-0.53$ | $1.02$ |

a. Find the average daily change in share value for each stock.

b. Which stock performed better over the 5 days? How much more money did the better performing stock earn, on average, per day?

c. Can you conclude that the stock that performed better over all 5 days also performed better over the first 4 days of the week? *Explain* your reasoning.