

47. The wind pressure on a plane varies jointly as the surface area and the square of the wind's velocity. With a velocity of 12 miles per hour, the pressure on a 4-foot by  $1\frac{1}{2}$  foot rectangle is 20 lbs. What is the velocity when the pressure on a surface 2 feet square is 30 lbs?
48. Three hamburgers and four hot dogs cost a total of \$2.15. If the hamburgers cost \$.55 more than the hot dogs, what is the cost of each hamburger and each hot dog?
49. A girl has 15 coins, all nickels and dimes, with a total value of \$1.20. Find the number of each kind of coin.
50. Judy buys 2 bags of potato chips and 3 boxes of pretzels for \$2.35. She then buys another bag of potato chips and 2 more boxes of pretzels for \$1.37. Find the cost of potato chips and pretzels.
51. The average of two numbers is  $\frac{11}{24}$ . One-third of their difference is  $\frac{1}{12}$ . Find the two numbers.
52. Mrs. Bowen receives a total of \$135 a year interest from a regular saving account, paying 5% per year, and from a special notice account, paying  $5\frac{1}{2}\%$  per year. If she had interchanged the amounts deposited in each type of account, her income would have decreased by \$7.50. Find the amount she deposited in each type of account.
53. A clerk mistakenly reversed the two digits in the price of a paperback book, overcharging the customer 18¢. If the sum of the digits is 16, determine the correct price of the paperback book.
54. If a two-digit number is divided by its tens digit, the quotient is 12 and the remainder is 1. If the number with its digits interchanged is divided by its original units digit, the quotient is 10 and the remainder is 4. Find the original number.
55. A man rows 3 miles upstream and 3 miles back in  $2\frac{1}{4}$  hours. He rows 1 mile against the current in the time he rows 2 miles with it. At what rate does he row in still water? What is his average rate of travel?
56. A boat can move upstream only three-fifths as fast as it can move downstream. To go 30 miles upstream and 30 miles downstream requires one-half hour more time than to go 60 miles in still lake water. Find the rate of the boat (in still water) and the rate of the current.
57. Mary is 3 times as old as Linda was when Mary was as old as Linda is now. Find the relationship between Mary's present age (m) and Linda's (l).
58. Mary is twice as old as Jane was at the time when Mary was as old as Jane is now. The sum of the present ages of Mary and Jane is 28 years. How old is each person now?
59. The two digits in the numerator of a fraction whose value is  $\frac{2}{9}$  are reversed in its denominator. The reciprocal of the fraction is the value of the fraction obtained when 27 is added to the original numerator and 71 is subtracted from the original denominator.