

Challenge Problems

13. Eight times a number plus five times another number is -13 . The sum of the two numbers is 1. What are the numbers?
14. Two times a number plus three times another number equals 4. Three times the first number plus four times the other number is 7. Find the numbers.
15. **FINANCE** Gunther invested \$10,000 in two mutual funds. One of the funds rose 6% in one year, and the other rose 9% in one year. If Gunther's investment rose a total of \$684 in one year, how much did he invest in each mutual fund?
16. **CANOEING** Laura and Brent paddled a canoe 6 miles upstream in four hours. The return trip took three hours. Find the rate at which Laura and Brent paddled the canoe in still water.
17. **NUMBER THEORY** The sum of the digits of a two-digit number is 11. If the digits are reversed, the new number is 45 more than the original number. Find the number.

13. Two times a number plus three times another number equals 13. The sum of the two numbers is 7. What are the numbers?
14. Four times a number minus twice another number is -16 . The sum of the two numbers is -1 . Find the numbers.
15. **FUNDRAISING** Trisha and Byron are washing and vacuuming cars to raise money for a class trip. Trisha raised \$38 washing 5 cars and vacuuming 4 cars. Byron raised \$28 by washing 4 cars and vacuuming 2 cars. Find the amount they charged to wash a car and vacuum a car.