

1. The sum of two numbers is 88. The larger number is 7 more than twice the smaller number. Find the numbers.
2. A father is 32 years older than his son. In 4 years, the father's age will be twice the son's age. Find their current ages.
3. A plane flies 480 miles with a headwind in 3 hours and returns with a tailwind in 2 hours. Find the plane's airspeed and the wind speed.

- A 100-gallon 80% acid solution is mixed with 50 gallons of 40% acid solution. What is the concentration of the resulting mixture?
- Ezekiel has dimes, nickels, and pennies. He has 2 more nickels than dimes, and 3 times as many pennies as nickels. The total value is 52 cents. Find the number of each coin.
- Two numbers sum to 63. Three times the smaller minus 4 equals twice the larger. Find the numbers.

- The sum of the digits of a two-digit number is 15. The tens digit is 3 more than the units digit. Find the number.
- A rectangle's length is 8 meters more than twice its width. Its perimeter is 70 meters. Find the width and length.
- Three angles of a triangle satisfy: the second angle is  $20^\circ$  more than the first and the third angle is twice the first. Find the angles.

10. Felicia had some nickels, some dimes, and some quarters whose total value is \$4.60. There are twice as many coins among the dimes and quarters than there are among the nickels. Once she spends 1 of her dimes, the value of her quarters is the same as the value of her nickels and dimes. How many of each type of coin did Felicia start with?

11. (5 points) The sum of the digits in a 4-digit number is 19. When you erase the tens digit, you get a 3-digit number that is ten times smaller than 72 less than the original. When you exchange the ones digit and the thousands digit, you get a 4-digit number that is three times smaller than 601 less than the initial 4-digit number. Reversing the digits results in a 4-digit number which is 679 less than half the original number. Find the original 4-digit number.