

Age Word Problems

1. Jessica is twice as old as Tina. In nine years, the sum of their ages will be 66 how old is each today?
2. Michelle is 2 years older than Judy, and Terry is 3 times as old as Michelle. In 7 years, Terry's age will be 5 more than the sum of the other two ages. Find the age of each now.

Integer Problems

3. Find three consecutive even integers such that twice the least increased by three times the greatest is 102.
4. Find three consecutive even integers such that twice the sum of the first and third integers is twenty-one more than the second integer.

Number Problems

5. The sum of two numbers is 17. Five times one number is one more than twice the other.
6. The sum of three numbers is one hundred twenty-three. The second number is two more than twice the first number. The third number is five less than three times the first number. Find the three numbers.
7. Twice a number increased by twelve, is thirty five less than three times the number. Find the number.

Mixture Problems

8. Adult tickets for a play cost \$5.00 and children's tickets cost \$2.00. For one performance, 460 tickets were sold. Receipts for the performance were \$1,880.00. Find the number of adult tickets sold.
9. A tea mixture was made from 30 lb of tea costing \$6.00 per pound and 70 lb of tea costing \$3.20 per pound Find the cost per pound of the tea mixture.
10. Fifty kilograms of oats worth 90¢/kg is added with some corn worth 60¢/kg to make some animal feed worth 75¢/kg. How many kilograms of corn were used in the mixture?

Coin and Stamp Problems

11. MaryBeth has a collection of pennies, nickels, dimes, and quarters. There are 7 less nickels than twice the number of pennies. The pennies outnumber the dimes by six. There is one more quarter than four times the number of dimes. If you take the expressions found for the total **value** of the pennies and dimes (in terms of cents) that would be equal to the number of coins in the collection. Find the value of all the coins in the collection.

12. A coin collection contains nickels, dimes, and quarters. There are twice as many dimes as quarters and seven more nickels than dimes. The total value of all the coins is \$3.10. How many quarters are in the collection?

13. A stamp collector has 8¢, 11¢, and 18¢ stamps. The collector has twice as many 8¢ stamps as 18¢ stamps. There are three more 11¢ than 18¢ stamps. The total value of the stamps in the collection is \$3.48. Find the number of 18¢ stamps in the collection.

Simple Interest Problems

14. Michelle Limotta invested \$10,000 for one year, part at 8% annual interest and the rest at 12% annual interest. Her total interest for the year was \$944. How much money did she invest at each rate?

15. Two investments earn a total annual income of \$1069. One investment is in a 7.2% annual interest account and the other is in a 9.8% simple interest CD. The total amount invested is \$12,500. How much is invested at each account?

Distance Rate Time Problems

16. Two airplanes leave Dallas at the same time and fly in opposite directions. One airplane travels 80 miles per hour faster than the other. After three hours, they are 2940 miles apart. What is the rate of each airplane?

17. A carrier and a destroyer left the same port at 8:00 A.M. and sailed in the same direction. The carrier averaged 30 km/h, and the destroyer traveled at 75 km/h. At what time will they be 375 km apart?

18. Two trains are 240 miles apart traveling toward each other on parallel tracks. One travels at 35 miles per hour and the other travels at 45 miles per hour. At the front of the faster train is a bee that can fly at 75 miles per hour. The bee flies from one train to the other until the trains pass each other. When the trains pass, how far has the bee flown?