

Word Problems

8. Metal A is 40% copper and metal B is 70% copper. How many kilograms of metal A must be mixed with 80 kilograms of metal B to obtain a metal that is 50% copper?
9. You invest some amount of money at 8% annually and \$3000 more than twice as much at 10%. The total annual interest from the investments is \$2540. Find the amount invested at 8%.
10. You have \$2.55 in quarters and nickels. There are 9 more nickels than quarters. How many nickels and quarters do you have?
11. You own a small movie theater that has one matinee screening and one evening screening. You charge \$5 for the matinee and \$9 for the evening show. Today you sold 246 tickets and had a revenue of \$1846. How many people were at each show?
12. Two planes leave Denver at noon and fly in opposite directions. If one flies at 410 mph and the other flies 120 mph faster, how long will it take for the planes to be 3290 miles apart?
13. Two trains traveling due South leave Seattle at the same time, but at different constant speeds. The faster train travels at 75 mph. After 13 hours, they are 91 miles apart. What is the speed of the slower train?
14. Two buses are leaving downtown Seattle traveling (at constant speeds) in opposite directions. One bus is traveling 10 mph faster than the other. Twelve minutes later, they are 12 miles apart. What are the speeds of each bus?

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