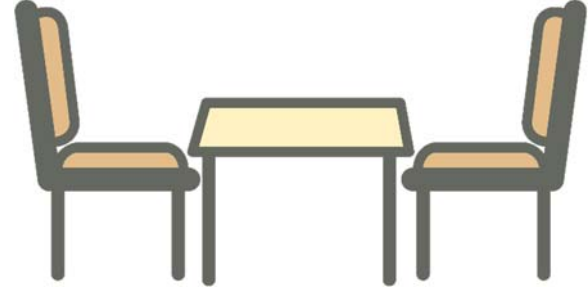


Name _____



Linear Equation Word Problems

1. Samantha is planning a charity event and needs to rent chairs and tables. She can rent chairs for \$5 each and tables for \$20 each. If she needs a total of 50 items and the total cost is \$250, how many chairs and tables should she rent?
2. Ethan is investing in stocks. He invests \$4000 in Company A, which has an annual return rate of 6%, and \$6000 in Company B, which has an annual return rate of 8%. If his total annual return is \$520, how much did he invest in each company?
3. A company produces two types of smartphones. Type X costs \$150 to produce and sells for \$300, while Type Y costs \$200 to produce and sells for \$400. If the company aims to make a total profit of \$5000 by selling both types, how many of each type must they sell?
4. Natalie is training for a triathlon. She swims at a rate of 2 mph, bikes at 15 mph, and runs at 6 mph. If she completes the triathlon in 4 hours and covers a total distance of 40 miles, how long did she swim, bike, and run?
5. A company manufactures and sells bicycles. The total cost to produce x bicycles is given by $C(x)=2000+50x$, where x is the number of bicycles produced. If each bicycle sells for \$150, how many bicycles must the company sell to make a profit of \$10,000?
6. Mia is packing boxes for shipping. She can pack 20 small boxes or 10 large boxes in an hour. If she needs to pack a total of 100 boxes and it takes her 6 hours, how many of each type did she pack?
7. A farmer has a rectangular field with a perimeter of 200 meters. He wants to fence off a rectangular section within the field to create a garden, leaving the rest as pasture. If the width of the garden is half its length, what are the dimensions of the garden that maximize its area?
8. A car rental company charges \$30 per day for a compact car and \$50 per day for a luxury car. They rented out a total of 25 cars for \$1050 in revenue. How many compact cars and luxury cars did they rent?
9. Hannah is investing in a savings account and a stock fund. She invests \$2000 in the savings account, which has an annual interest rate of 4%, and \$5000 in the stock fund, which has an expected annual return rate of 10%. If her total annual return is \$460, how much interest did she earn from the savings account?
10. A bakery sells two types of cakes. Type A sells for \$20 each, and Type B sells for \$30 each. If the bakery sold a total of 80 cakes for \$2000, how many of each type did they sell?