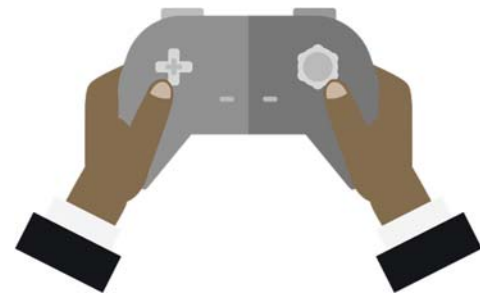


Name _____



Linear Equation Word Problems

1. In a game store, Hannah buys a combination of video games and board games. She spends a total of \$120. If video games cost \$15 each and board games cost \$10 each, and she buys 5 more board games than video games, how many of each did she buy?
2. A construction company is building a rectangular playground with a perimeter of 200 meters. They want to maximize the area of the playground. If the length is 10 meters longer than the width, what are the dimensions of the playground?
3. Sarah works as a tutor and charges \$30 per hour for her services. Last month, she worked a total of 25 hours and earned \$700. How many hours did she work for free to help struggling students?
4. A furniture store sells chairs and tables. Last month, they sold a total of 40 items, making a revenue of \$1200. If chairs cost \$40 each and tables cost \$60 each, how many of each did they sell?
5. A farmer is planning to plant two types of crops: corn and wheat. Each acre of corn requires 3 hours of labor and yields a profit of \$200, while each acre of wheat requires 2 hours of labor and yields a profit of \$150. If the farmer has 150 hours of labor available, how many acres of each crop should be planted to maximize profit?
6. Alex wants to buy a new smartphone and a tablet. The total cost is \$1500. If the smartphone costs \$800 and the tablet costs \$200 more than the smartphone, what is the cost of the tablet?
7. A company produces two types of bicycles: mountain bikes and road bikes. Mountain bikes require 4 hours of assembly time and 2 hours of painting time, while road bikes require 5 hours of assembly time and 3 hours of painting time. If the company has 60 hours for assembly and 30 hours for painting, how many of each type can they produce to maximize profit?
8. Mark invested in stocks and bonds. He invested \$5000 in stocks, which earn an annual return of 8%, and \$3000 in bonds, which earn an annual return of 6%. If his total annual return is \$420, how much did he earn from each investment?
9. A shipping company charges a base fee of \$20 plus \$5 for each package shipped. If a customer's bill is \$95, how many packages did they ship?
10. A car rental agency offers two options for a weekend rental. Option A charges \$50 per day plus \$0.25 per mile, while Option B charges \$70 per day with unlimited mileage. For what mileage will both options cost the same for a two-day rental?