

6-7 Systems of Equations in Context

Name _____

Per. ____

Write a system of equations for each situation. Then solve your system to answer the given question. Be sure to define your variables and answer in complete sentences!

1. Reserved football seat tickets cost \$4 each and general admission tickets cost \$3 each. After the game is over, the turnstile count shows that 1,787 people paid admission. You count a total of \$5,792 from the sale of tickets. You are just about ready to leave for your postgame date when your boss says, "By the way, how many of each kind of ticket were there?" How many of each type of ticket did you sell?
2. A trainload of cars and trucks is traveling to an automobile dealer for whom you work. Before they arrive, the dealer receives an invoice showing a total of 160 vehicles. But the part of the invoice showing how many of each kind of vehicle has been torn off and lost. The invoice shows a total mass of 182,800 kilograms of vehicles and each truck is 1,400 kg and each car is 1,000 kg. How many of each kind are there?
3. Ramiro earns \$20 per hour during the week and \$30 per hour for overtime on the weekends. One week Ramiro earned a total of \$650. He worked 5 times as many hours during the week as he did on the weekend. How many hours of overtime did Ramiro work on the weekend?
4. Margo makes 14 baskets during her game. Some baskets are worth 2-points and others are worth 3-points. In total, she scored 30 points. How many 2-point baskets and how many 3-points baskets did she make?