

Lesson 28 ~ Applications of Systems of Equations

Name _____ Period _____ Date _____

Define the variables and develop a system of equations for each problem. Solve the system and check your solution. Write your answer in a complete sentence.

1. Two bike rental companies have different pricing systems. Company A charges a flat fee of \$4 plus \$2 per hour. Company B does not charge a flat fee but charges \$2.80 per mile driven. At what distance do both companies charge the same amount?
2. Two teachers, Mr. Meehan and Mrs. Chipps, decide to buy compasses and rulers for their classrooms. Mrs. Chipps buys 30 compasses and 50 rulers for \$95. Mr. Meehan buys 40 of each for \$116. What are the individual costs of the compasses and rulers that were purchased?
3. Lesley bought 4 bags of pretzels and 2 boxes of granola bars for \$13.50. Landon bought 1 bag of pretzels and 5 boxes of granola bars for \$17.55. What is the cost for one bag of pretzels? What is the cost for a box of granola bars?
4. SaveLots offers two types of baseball bats. The wood bats sell for \$24 and the metal bats sell for \$30. In one day, SaveLots sold 23 baseball bats. The receipts for those bats totaled \$606. How many of each type of bat were sold?