**6-3 Practice**

***Solving Linear Systems Using Inverses***

**Use an inverse matrix to solve each system of equations, if possible.**

 **1.** 4*x* – 7*y* = 30 **2.** –2*x* – 8*y* = –36

 –6*x* + 2*y* = –11 4*x* + 3*y* = 7

**3.** *x* – 2*y* + 7*z* = –33 **4.** *x* + *y* – 2*z* = 5

 –4*x* + 5*y* – *z* = 18 *x* + 2*y* + *z* = 8

 5*x* – 3*y* = –11 2*x* + 3*y* – *z* = 1

**Find the system’s solution if it exists.**

 **6.** –4*x* – 5*y* = 1 **7.** *x* + *y* + *z* = 8

 –2*x* – 3*y* = –1 3*x* – *z* = –22

 *y* + 2*z* = 20

**8. PAPER ROUTE** Payton, Santiago, and Queisha each have a paper route. Payton delivers 5 times as many papers as Santiago. Santiago delivers twice as many papers as Queisha. If 20 papers were added to Payton’s route, he would then deliver four times the total number of papers that Santiago and Queisha deliver. How many papers does each person deliver?