Name _____

5-6A Lesson Master

SKILLS Objective C

In 1–3, a. write the matrix form of the system, and b. solve the system.

1. $\begin{cases} 2.8x - 5.1y = 5.34 \\ 3.1x + 1.7y = 30.89 \end{cases}$

2. $\begin{cases} 2x - 7y = -18 \\ -5x + 17.5y = 45 \end{cases}$

3. $\begin{cases} 3a + 3b - 4c = 2 \\ 4a - 2b + c = 4 \\ -a + 5b - 3c = -6 \end{cases}$

a. _____ a. _____ a. _____

b. _____ b. _____ b. _____

PROPERTIES Objective D

4. **True or False** If the coefficient matrix in a system has no inverse, the system is inconsistent.
_____

5. For what values of k and b does the equation $\begin{bmatrix} 14 & k \\ 2 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 21 \\ b \end{bmatrix}$ represent a system of parallel lines?
_____

USES Objective F

6. South High School charges $5 adult admission and $2 student admission to its band concert. The band director forgot to tell the ticket takers to keep track of the number of adults and students, but the ticket takers report that they sold 521 tickets and took in $1882. How many adults and students attended?
_____

7. Javier decides to reduce his sugar consumption but doesn't want to give up his favorite cereal, Frosted Sugar Crisp. He decides to mix it with some Health Nut cereal. Frosted Sugar Crisp has 2.4 grams of sugar per ounce. Health Nut has 0.3 grams of sugar per ounce. To the nearest ounce, how much of each should Javier mix to get a 12-ounce bowl that has 10 grams of sugar?
_____