

Worksheet: Matrices 3
Mr. Chvatal

Name: _____ **Date:** _____

Rewrite the following systems of equations as matrix equations of the form $Ax = B$, then solve using a graphing calculator.

1.
$$\begin{cases} 7x - 5y = 11 \\ -4x - 2y = -14 \end{cases}$$

2.
$$\begin{cases} 2x - 7y = 3 \\ 5x - 4y = -6 \end{cases}$$

3.
$$\begin{cases} 4y + 30 = 10x \\ 5x - 2y = 15 \end{cases}$$

4.
$$\begin{cases} x + y - z = 14 \\ 4x - y + 5z = -22 \\ 2x + 2y - 3z = 35 \end{cases}$$

5.
$$\begin{cases} 5x + 2y - z = -7 \\ x - 2y + 2z = 0 \\ 3y + z = 17 \end{cases}$$

6.
$$\begin{cases} x + y + z + w = 10 \\ 2x - y + z - 3w = -9 \\ 3x + y - z - w = -2 \\ 2x - 3y + z - w = -5 \end{cases}$$

7. There are three classes of grain, of which three merchants share 132 measures. When divided equally, Chin Sze has three bundles of the first, one of the second and two of the third. Mao Tsu has one bundle of the first, six of the second and one of the third. Yuen Li has just four bundles of the first. How many measures of grain are contained in one bundle of each class?