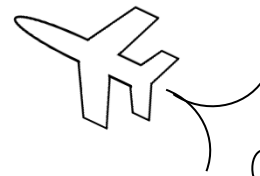# Math on the Fly!

NAME: _____ DATE: _____

Adding and Subtracting Matrices

Solve each problem.

1. $\begin{bmatrix} 2 & -3 \\ -5 & 7 \end{bmatrix} + \begin{bmatrix} -6 & 4 \\ 5 & -9 \end{bmatrix}$

2. $\begin{bmatrix} -8 & 2 \\ 4 & -3 \end{bmatrix} - \begin{bmatrix} 1 & 5 \\ 3 & -2 \end{bmatrix}$

3. $\begin{bmatrix} 0 & -4 \\ -6 & 8 \\ 9 & -2 \end{bmatrix} + \begin{bmatrix} -3 & 4 \\ 2 & -1 \\ -5 & -7 \end{bmatrix}$

4. $\begin{bmatrix} 6 & 1 \\ -7 & -3 \\ -8 & 4 \end{bmatrix} - \begin{bmatrix} 2 & -6 \\ -1 & -9 \\ 1 & 7 \end{bmatrix}$

5. $\begin{bmatrix} 1/2 & -4 & 1.6 \\ -0.3 & -3/5 & 2 \end{bmatrix} + \begin{bmatrix} 7/8 & -4 & -2.5 \\ 0.1 & 1/10 & -1/9 \end{bmatrix}$

Find the unknown values in each equation below.

6. $\begin{bmatrix} W & 3 \\ -8 & X \end{bmatrix} + \begin{bmatrix} 6 & Z \\ Y & 4 \end{bmatrix} = \begin{bmatrix} 4 & -6 \\ -1 & 0 \end{bmatrix}$

7. $\begin{bmatrix} 5 & W \\ X & 8 \end{bmatrix} - \begin{bmatrix} Y & -5 \\ 2 & Z \end{bmatrix} = \begin{bmatrix} -4 & 2 \\ -8 & 9 \end{bmatrix}$

SOLUTIONS

1. $\begin{bmatrix} -4 & 1 \\ 0 & -2 \end{bmatrix}$ **2.** $\begin{bmatrix} -9 & -3 \\ 1 & -1 \end{bmatrix}$

3. $\begin{bmatrix} -3 & 0 \\ -4 & 7 \\ 4 & -9 \end{bmatrix}$ **4.** $\begin{bmatrix} 4 & 7 \\ -6 & 6 \\ -9 & -3 \end{bmatrix}$ **5.** $\begin{bmatrix} 11/8 & -8 & -0.9 \\ -0.2 & -1/2 & 17/9 \end{bmatrix}$

6.
$W + 6 = 4 \implies W = -2$
$X + 4 = 0 \implies X = -4$
$-8 + Y = -1 \implies Y = 7$
$3 + Z = -6 \implies Z = -9$

7.
$W - -5 = 2 \implies W = -3$
$X - 2 = -8 \implies X = -6$
$5 - Y = -4 \implies Y = 9$
$8 - Z = 9 \implies Z = -1$