NAME_____**DATE**_____**PER.**_____

SOLVING SYSTEMS OF EQUATIONS BY MATRICES

Solve each system using matrices in your calculator.

1. $3x + y = 5$

   $5x + 2y = 9$

$$\begin{bmatrix} \_ \\ \_ \end{bmatrix} = \begin{bmatrix} \_ & \_ \\ \_ & \_ \end{bmatrix}^{-1} \begin{bmatrix} \_ \\ \_ \end{bmatrix}$$

Solution:_____

2. $2x - 5y = 12$

   $x - 3y = -3$

Solution:_____

3. $4x + y = 0$

   $x + y = -3$

Solution:_____

4. $2x - 4y = 7$

   $-3x + y = 12$

Solution:_____

5. $4x + y = -3$

$5x - y = -6$

Solution:_____

6. $\frac{1}{3}x + \frac{2}{3}y = -1$

$-2x - y = 7$

Solution:_____

7. $3x - y = 4$

$x - y = 6$

Solution:_____

8. To solve a system of equations using matrices in your calculator, both equations must be in _____ form. Which of the systems below could you solve using matrices without altering the way the equations are written?*(Hint: There are two correct answers.)*

A. $5y - 2x = 6$
$3x - y = 4$

B. $2f - 3g = 17$
$f + 4g = -6$

C. $3a - 4b = 12$
$6a - b = 10$

D. $y = 2x + 5$
$2x - 3y = -9$

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