Solve the system of equations using matrices. Show the coefficient matrix, the answer matrix, and state your solution for the variables.

1. $3x - 3y = -6$
   $9x - 2y = 3$

2. $3x + 2y = 12$
   $4x - y = 5$

3. $2x + 4y = 3y$
   $x - 2y + 4 = 0$

4. $x + 2y - 3z = 9$
   $2x - y + 2z = -8$
   $3x - y - 4z = 3$

Find the equation of the line passing through the points:

5. $(2,3)$ and $(-1, -2)$

6. $(0,4)$ and $(-4,0)$

Find the equations of the parabola passing through the points:

7. $(0,-5)$ $(1,7)$ and $(-1, -9)$

8. $(-1, 12)$ $(0,7)$ and $(1,0)$

System of Equations Practice

Find the equation of the line or parabola for each graph. Show the matrices you use.

1.

2.

3.

4.

5.

6.