Name: _____ **Date:** _____ **Class/Period:** _____ **Attempt #** _____ **ID: A**

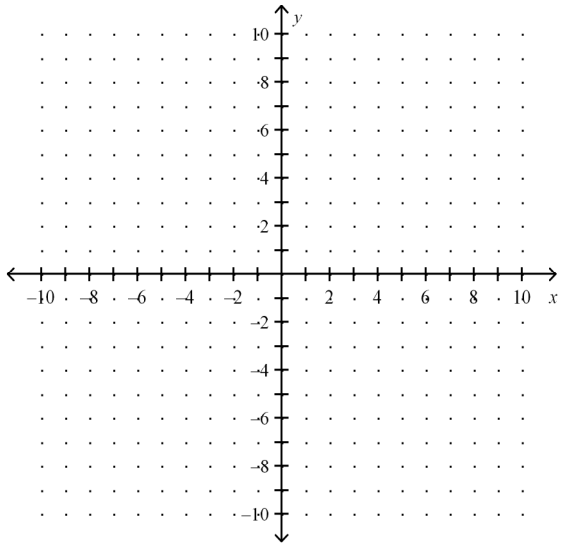
$$y = mx + b \qquad m = \frac{y_2 - y_1}{x_2 - x_1}$$

Proficiency Demonstrated: **Perfect** ❑ **Sufficient** ❑ **Insufficient (Repeat Evaluation)** ❑

MPM2D - Essential Skills Proficiency Assessment # 1 - Solving Linear Systems

1. Solve the following system of equations by **graphing**.

   $y = \frac{1}{3}x - 6$ $y = -2x + 8$ Answer: _____



2. Use a **formal check** to verify that the point (–2, 1) is a solution to the system:

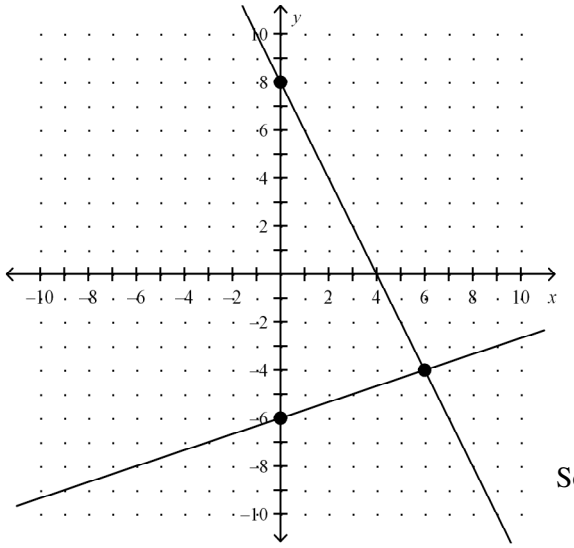
   $-3x - 2y = 4$ $5y = -3 - 4x$

3. Solve the follolwing linear system of equations by **substitution** or **elimination**.

   $-x + 5y = 3$ $-4x + 9y = 1$

MPM2D - Essential Skills Proficiency Assessment # 1 - Solving Linear Systems
Answer Section

1. ANS:



Solution is (6, –4)

PTS: 1

2. ANS:
Solution (–2, 1)

PTS: 1

3. ANS:
(2, 1)
Substitution:
$-x+5y=3 \qquad -x+5y=3$

$-x=3-5y \qquad 5y=3+x$

substitute $-x=3-5y5y=3+x$ into $-4x+9y=1$

$-4(3-5y)+9y=1 \qquad -4(3-5y)+9y=1$

$-12+20y+9y=1 \qquad -12+20y+9y=1$

$20y+9y=1+12 \qquad 20y+9y=1+12$

$29y=13 \qquad 29y=13$

$y=\frac{13}{29} \qquad y=\frac{13}{29}$

$y=1 \qquad y=1$

substitute $y=1x=2$ into $-x=3-5y5y=3+x$

$-x=3-5(1)$

$x=2$

$\therefore$ the solution is (2,1)

PTS: 1