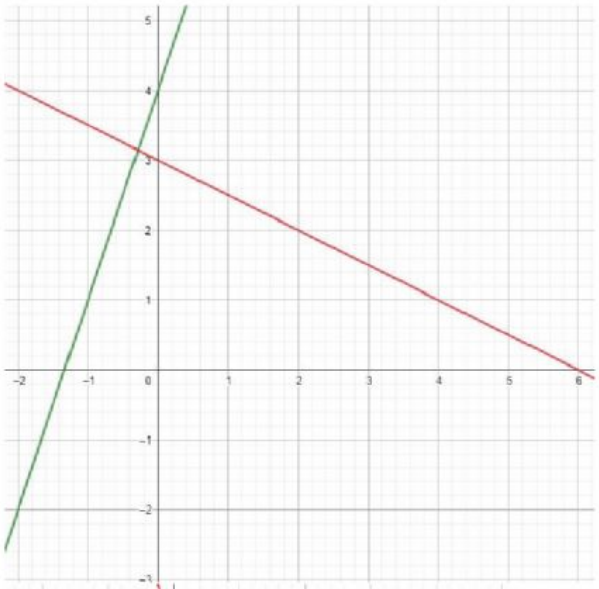
1. Consider the following system of equations.

Line 1: $3x + y = 4$

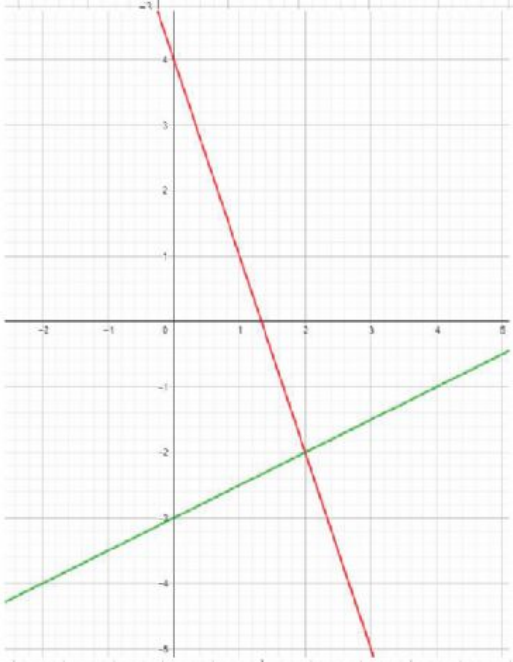
Line 2: $x - 2y = 6$

a. Choose which graph best exemplifies the given system of equations.

i.



ii.



iii.

b. Find the solution to the system of equations.

i. x= ☐

ii. y= ☐

2. Consider the following system of equations.

Line 1: $2x - y = -3$

Line 2: $-6x - 2y = -6$

a. Put Line 1 into slope-intercept form. What is the slope of Line 1? What is the y-intercept? Slope= ☐ y-intercept= ☐

b. Put Line 2 into slope-intercept form. What is the slope of Line 1? What is the y-intercept? Slope= ☐ y-intercept= ☐

c. Is (0, 3) a solution to Line 1? Yes No

d. Is (0, 3) a solution to Line 2? Yes No

e. What is the solution to the system of equations? (☐ , ☐)

3. Match the System of Equations with the right solution.

$-5x - 8y = 17$
$2x - 7y = -17$ (6, -9)

$-3x + 3y = 3$
$-5x + y = 13$ (-5, 1)

$7x + 2y = 24$
$8x + 2y = 30$ (-2, -4)

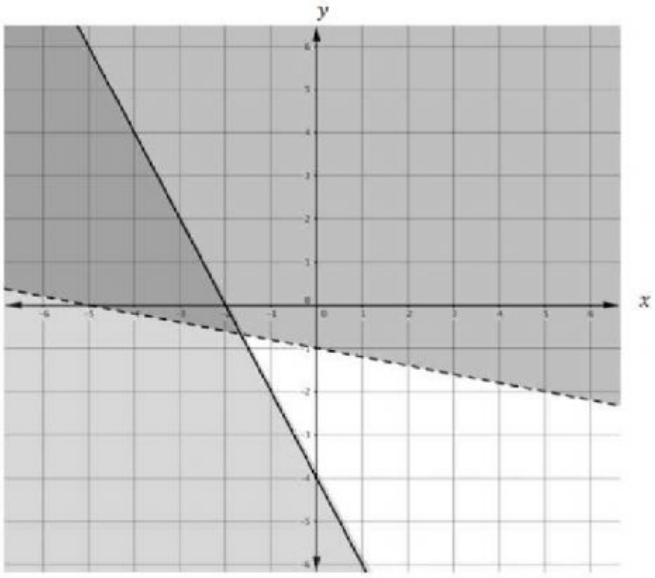
$3x - 2y = 2$
$5x - 5y = 10$ (-3, -2)

4. Atlantic High and Boca Raton High are sending their Earth and Space Science classes to the Frost Planetarium. Atlantic High rented and filled 7 van and 12 buses with 672 students. Boca Raton High filled 14 vans and 8 buses with 560 students. Each van and bus carried the same number of students.

   a. How many students can a single van carry? ☐

   b. How many students can a single bus carry? ☐

5. Consider the following graph of a system of inequalities.



   a. Click on the ordered pairs that represent potential solutions to the system of inequalities.

      i. (-6, 3)

      ii. (-3, 3)

      iii. (0, 3)

      iv. (0, 0)

      v. (6, 0)

      vi. (-6, -6)

      vii. (-3, -6)

      viii. (-6, 6)

ix. (-4, 2)

x. (3, -3)