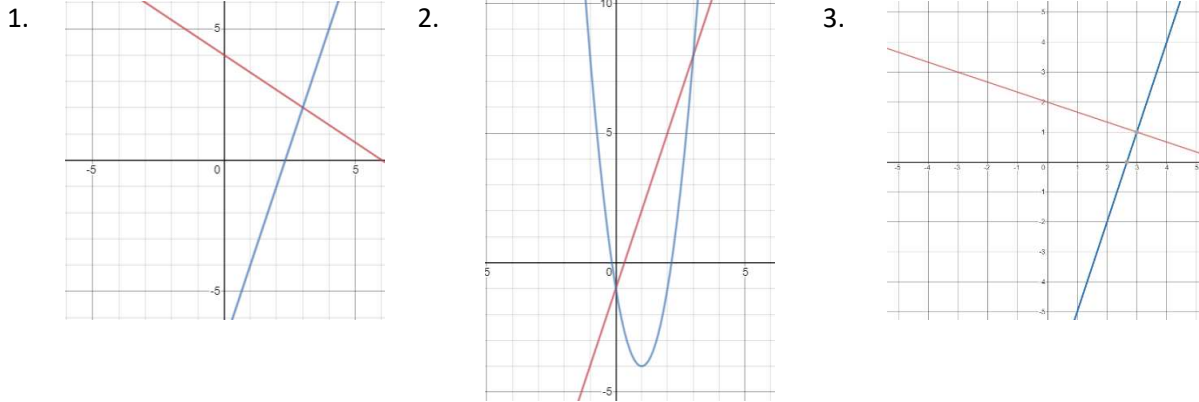


State the solution(s) to the systems of equations graphed below.



Solve the following systems of equations. Use whichever method you would like, though I will put them in groups based on which way I recommend you solve them.

Recommended Method: Substitution

4. $4x - y = 8$; $y = 4x + 3$

5. $5x + y = 10$; $y = 5$

Recommended Method: Elimination

6. $x + 6y = 1$

$-2x - 11y = -4$

7. $2x - 3y = -3$

$-6x + 10y = 8$

8. $x + 3y = -2$

$-x - 2y = 4$

Set up a system of equations for the following word problems and solve using any method.

9. A karate school offers a package of 12 group lessons and 2 private lessons for \$110. It also offers a package of 10 group lessons and 3 private lessons for \$125. How much does a single group lesson and a single private lesson cost?

10. A swimming pool is twice as long as it is wide. Its perimeter is 150 feet. Find the length and width of the pool.

Solving Linear Inequalities. Graph the solution set on a number line.

11. $2x > 14$

12. $4(2x - 1) \geq 3(2x + 1)$

13. $10 - 3x \leq -8$

Compound Inequalities. Graph the solution set on a number line.

14. $8 \leq 3 - 5x < 28$

15. $0 < 2x < 4$

16. $2x - 7 > -13$ or $x + 15 \leq 5$

17. $x + 7 \geq -29$ or $16 - x > 2$