

Section 8.3 Extra Practice

- Predict the number of solutions for each system of linear equations. Justify your answers.
 - $y = 5x - 1$
 $y = -2x - 1$
 - $y = \frac{1}{2}x + 5$
 $y = \frac{1}{2}x + 5$
 - $y = 4x - 1$
 $y = 4x + 3$
- How many solutions does each linear system have? Justify your answers.
 - $2x + 3y = 20$
 $6x - y = 20$
 - $x - 5y = 1$
 $-x + 5y = 1$
 - $x + 3y = 5$
 $2x + 6y = 10$
- In the system of linear equations $y = 3x + 4$ and $y = 3x + b$, what values of b will result in a system that has
 - no solution?
 - one solution?
 - an infinite number of solutions?
- In the system of linear equations $y = -2x + 1$ and $y = mx + 1$, what values of m will result in a system that has
 - no solution?
 - one solution?
 - an infinite number of solutions?
- In the system of linear equations $y = 4x - 1$ and $y = mx + b$, what values of m and b will result in a system that has
 - no solution?
 - one solution?
 - an infinite number of solutions?
- In the system of linear equations $x + 2y = 4$ and $3x + 6y = C$, what values of C will result in a system that has
 - no solution?
 - one solution?
 - an infinite number of solutions?
- Consider the following four linear equations:
 - $4x + 2y = 20$
 - $6x + 3y = 5$
 - $2x + y = 10$
 - $4x - 2y = -20$Identify two lines that form a system that has
 - no solution
 - one solution
 - an infinite number of solutions