

# Graphing Systems of Equations

## Bell Work:

1. What type is this linear function?  $5x - 4y = -40$
2. What are 2 points on the line with the same equation?
3. What is the slope of the line with the same equation?
4. What is the domain of the absolute value parent function?

# Graphing Systems of Equations

1.  $y = \frac{2}{3}x - 3$  and  $y - 6 = \frac{2}{3}(x - 1)$

*Graph both lines and find the intersection.*

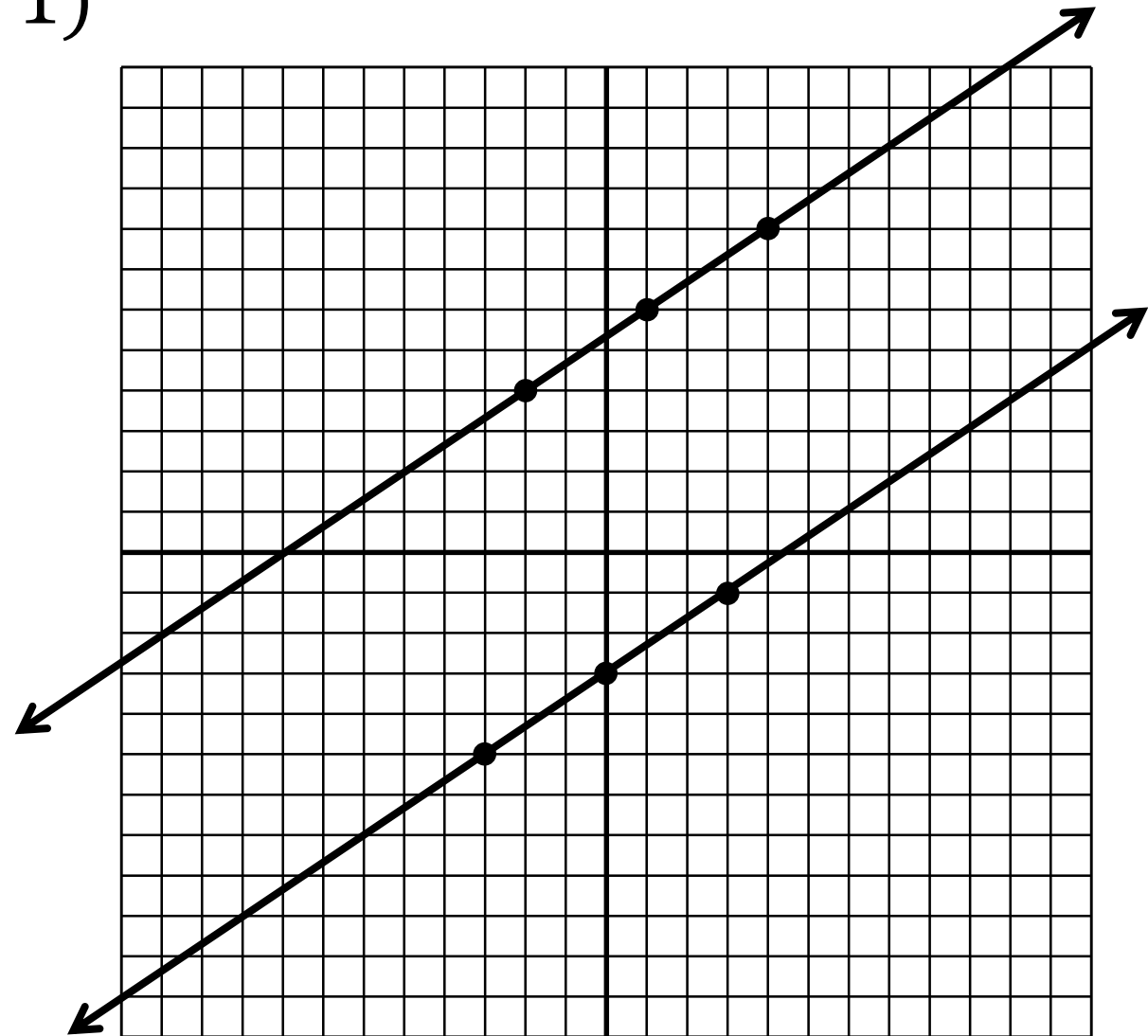
**P: (0, 4)**

**P: (1, 6)**

**S:  $\frac{2}{3}$**

**S:  $\frac{2}{3}$**

**There are no solutions,  
because the lines are parallel.**



# Graphing Systems of Equations

2.  $y - 9 = \frac{3}{4}(x - 8)$  and  $3x - 4y = -12$

*Graph both lines and find the intersection.*

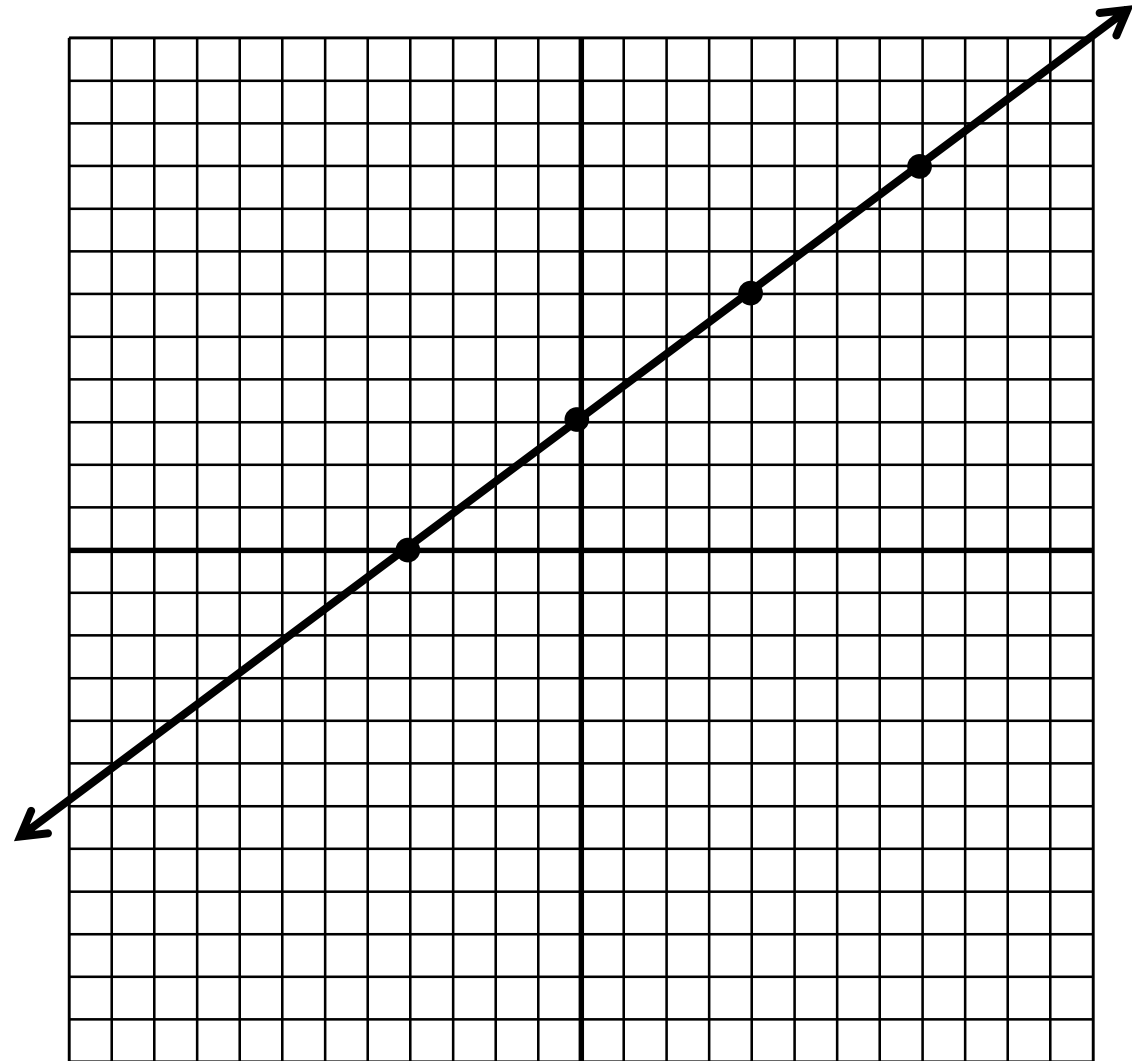
**P: (8, 9)**

**P: (0, 3)**

**S:  $\frac{3}{4}$**

**P: (-4, 0)**

**There are infinitely many solutions, because the lines are the same line.**



# Graphing Systems of Equations

3.  $2x - 3y = 4$  and  $y = -\frac{1}{2}x + 8$

*Graph both lines and find the intersection.*

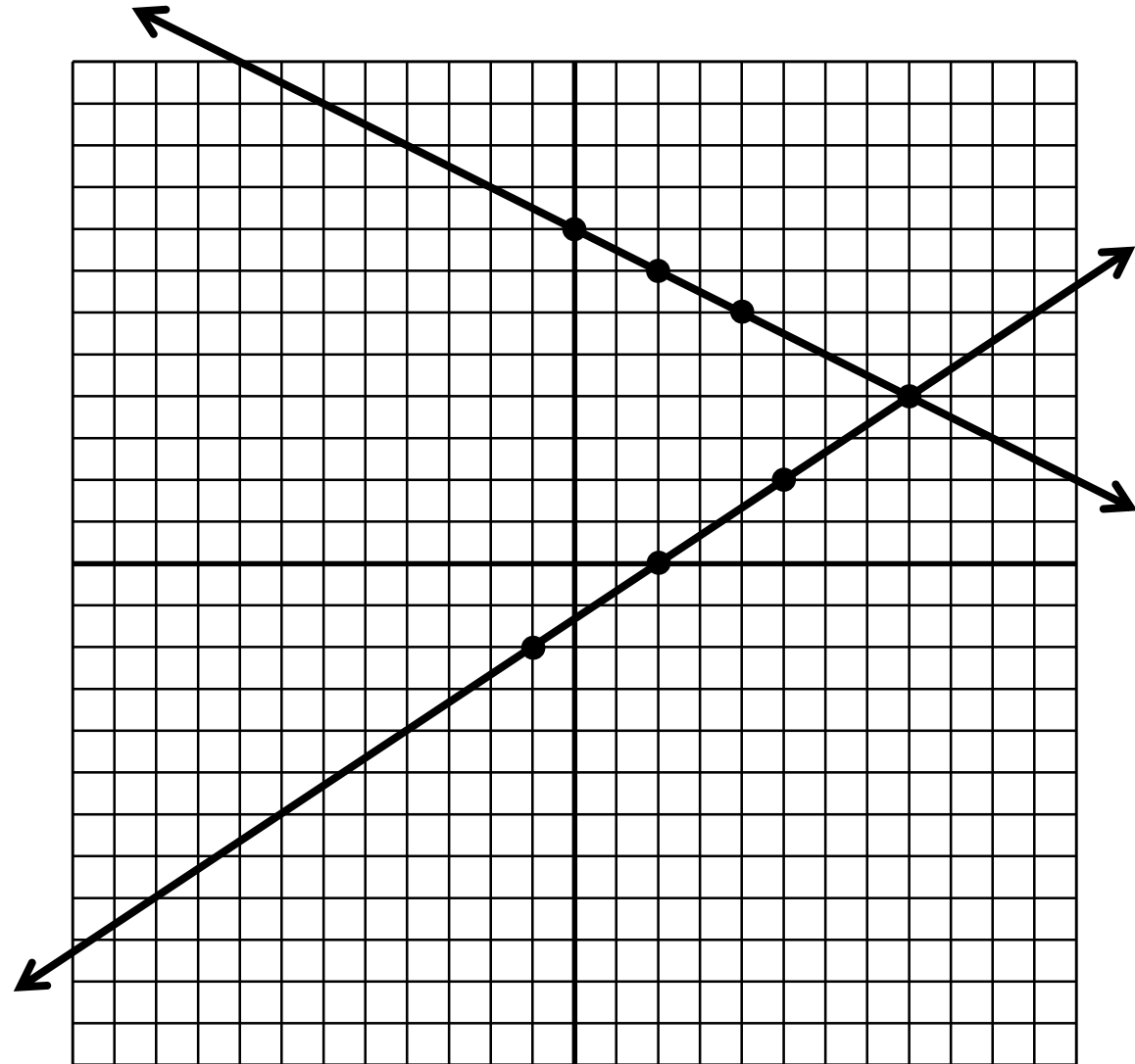
**P: (2, 0)**

**P: (0, 8)**

**S:  $\frac{2}{3}$**

**S:  $-\frac{1}{2}$**

**(8, 4)**



# Graphing Systems of Equations

**When are there no solutions?**

**When you have parallel lines.**

**When are there infinitely many solutions?**

**When the lines are the same line.**

**When is there 1 solution?**

**When the lines are intersecting.**

# Graphing Systems of Equations

**Assignment:**

**FLEUNCY PRACTICE: Graphing Systems of Equations B Worksheet**