Name:_____ Date:_____
Algebra 1 Band:_____

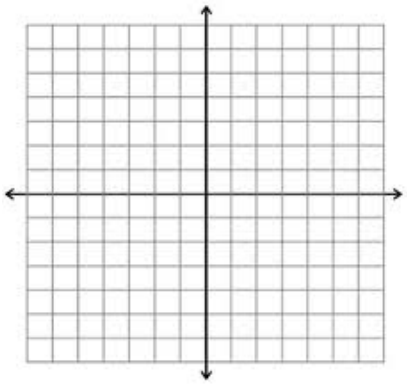
# Unit 6: Systems of Linear Equations & Inequalities

**LT#1:** Solve systems of equations by graphing.

**1.** What is true about the graphs of $y = -4x + 6$ and $y = \frac{1}{4}x + 6$?

**A.** They are parallel.
**B.** They have the same slope.
**C.** They are perpendicular.
**D.** They do not intersect.

**2.** Solve the following system of equations by graphing. $\begin{cases} y = x + 3 \\ y = -2x - 3 \end{cases}$



**LT#2:** Analyze special systems.

**3.** Find the number of solutions to each system.

**A.** $\begin{cases} 4x - y + 1 = 0 \\ 4x - y + 3 = 0 \end{cases}$

**B.** $\begin{cases} 2x - y + 4 = 0 \\ 4x - 2y + 8 = 0 \end{cases}$

**LT#3:** Solve systems of equations using substitution.
**LT#4:** Solve systems by adding or subtracting to eliminate a variable.

**4.** Solve the system by elimination $\begin{cases} 234x + 65y = 219 \\ 1225x + 65y = -427 \end{cases}$

**5.** Solve the system by substitution $\begin{cases} 4x = 3y + 23 \\ 4y + 3x = -19 \end{cases}$

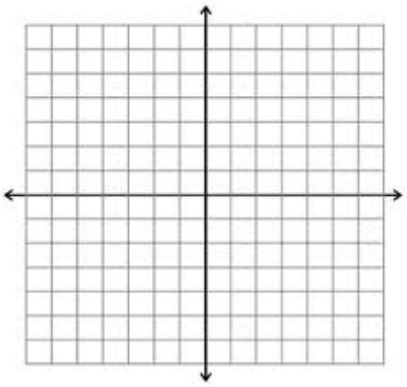
**LT#5:** Choose the best method for solving a system of linear equations.

**6.** A mail order company sells boxes of fishing lures for $26.95 per box. A charge of $8.95 is added to orders, regardless of the order size. Write an equation that models the relationship between the number of boxes ordered and the total cost of the order.

**7.** Chelsea Piers Bowling Alley charges $3 for the first game and $0.50 for each additional game. Eastside Bowling Alley charges $1 per game. How many games would you have to bowl to make Chelsea Piers the less expensive choice?

**LT#6:** Graph linear inequalities in two variables.

**8.** Graph $2y - 5x > 6$



**LT#8:** Solve systems of linear inequalities by graphing.

**9.** Graph the system $\begin{cases} y > 4x - 2 \\ y > -3x + 5 \end{cases}$