2016-2017 LC Math I Name:
Final Exam Review Day 4 Period: Date:

Unit 2 – Systems of Equations and Inequalities

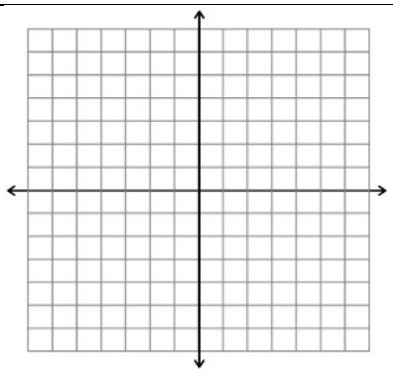
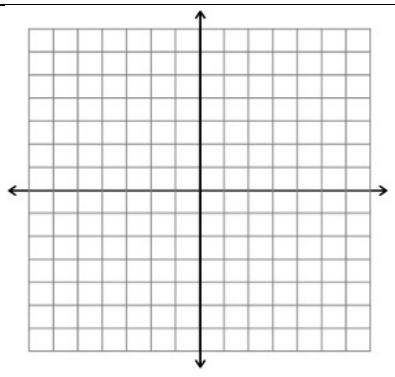
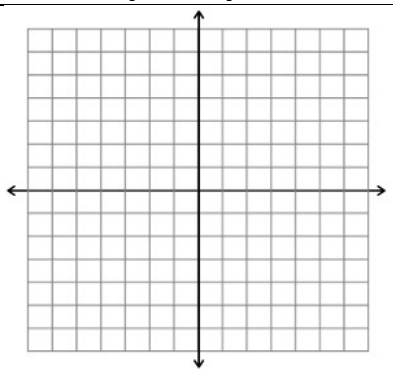
Inequalities

Solving	**Solving when multiplying or dividing by a negative number**
$2(x-1)+5>12$	$6-3x\leq -3$

Compound Inequalities

AND	**OR**
$7<3(x-1)+4\leq 25$	$2x+4<8 \; or \; 2x+4>16$

Systems of Equation: No Solution, One solution, Infinitely Many Solutions

	No Solution	**One Solution**	**Infinitely Many**
Graph			
Algebra			

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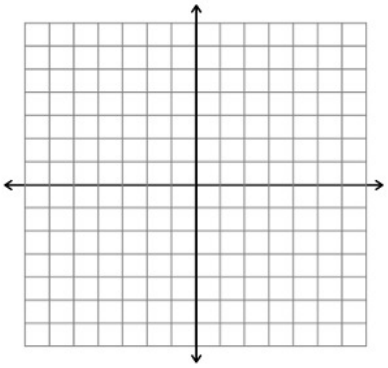
Solving Systems of Equations

By Graphing

$$\begin{cases} y = \frac{3}{5}x - 4 \\ 5x - 3y = -4 \end{cases}$$



By Substitution

$$\begin{cases} 2x + y = 9 \\ x + 3y = 2 \end{cases}$$

By Elimination

$$\begin{cases} 2x + 4y = 12 \\ 5x + 3y = 2 \end{cases}$$

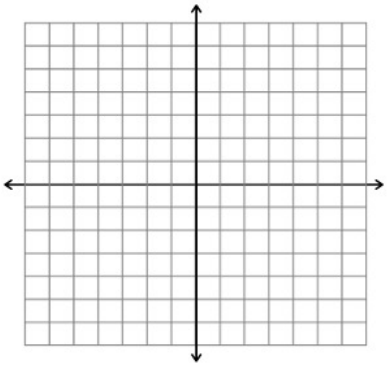
Word Problems

Mary and Shawn are selling plain and patterned wrapping paper. Mary sold 5 plain rolls and 14 patterned rolls for $380. Shawn sold 10 plain and 7 patterned rolls for $340. How much does each type of paper cost?

Linear Inequalities

Linear Inequality

$$y + 3 < \frac{3}{4}(x + 6)$$



System of Linear Inequalities

$$\begin{cases} y \leq 2x - 5 \\ y > -\frac{1}{3}x + 4 \end{cases}$$