<u>Systems of Equations Class Work</u> (Substitution & Elimination)

Solve systems of equations, and solve using that method.

Solving by Substitution:

Solving by Elimination:

* Guided Example: Solve each system of equations.

Use what you believe to be the most efficient method, and use each method at least once. Check your answers.

A. $2x - 5y = 10$	B. $x + 2y = 14$
28 - 4x = -12y	-4x - 8 = 2y

* Now You Try Some: Solve each system of equations.

Use what you believe to be the most efficient method, and use each method at least once. Check your answers.

Ⅰ2x + 8y = -14	2. $3x - 12y = 30$
24y - 6x = -42	-6x + 15y = -15

3. -9x - 4y = -44. 2x - 4y + 8 = 0-6y - 18x = 1212x - 4y = 24

5.
$$9x + 18y = 27$$
6. $45x + 54y = 18$ $4.5x - 9 = -9y$ $-36y - 90x = 72$

7.
$$2y = -x + 1$$

 $-6y - 3x = 1.5$ 8. $y = x^2$
 $y = 2x$

9.
$$2x + 18 = -3y$$

 $27y + 17 = -18x + 1$
10. $y = |x|$
 $y = x - 5$

*Choose any of the systems you solved and are proud of. Show all of the work to support your solution on the board. ©

*Create any linear equation. Call this equation A.

*Choose two of your peers, and share equations with each other. Name your peer's equations equation B and equation C, respectively.

*Solve each system:

- I. The system of equations created by your equation A and equation C.
- 2. The system of equations created by your equation A and equation B.
- 3. The system of equations created by your equation B and equation C.

Exit Activity Choose the option that you believe will benefit you the most! ©

Option A:

Create any system of equations that would be most efficiently solved by substitution.

Option B: Solve the system: 3x - 7y = 108y + 2 = 6x

- <u>Option C:</u> Create a system of equations involving a linear equation and an absolute value equation. Solve your system.
- <u>Option D:</u> Write down any questions you still have regarding solving systems of two equations.

Option E: Solve the system. Support your solution. y = |x + 3|x = -5