

Detailed Targets:

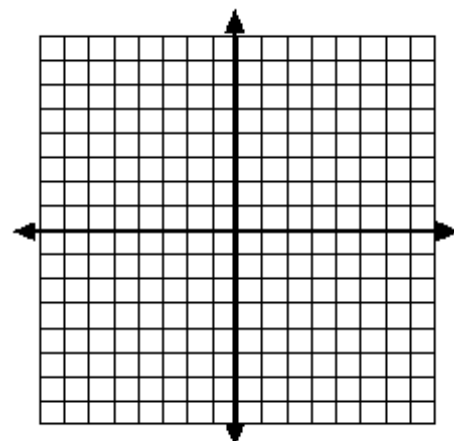
7 I can use previous skills learned as they apply to Chapter 6 topics.

7.1A I can check the intersection point (solution) of a system of equations.

Ex 1a: Is $(6, -1)$ a solution to the linear system $\begin{cases} 2x + 5y = 7 \\ -x - 2y = -8 \end{cases}$?

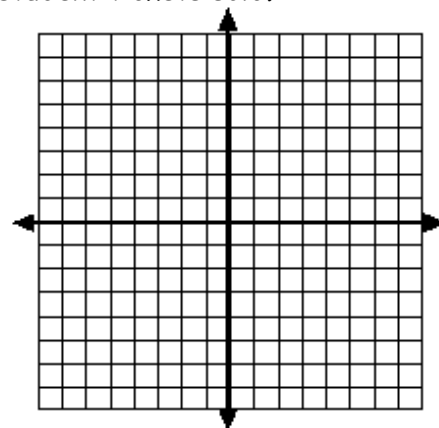
7.1B I can use the graphing method to solve a system of equations.

Ex 1b: Solve the linear system by graphing: $\begin{cases} -x + y = 5 \\ 2x + y = 8 \end{cases}$



7.1C I can use the graphing method to solve a multi-step problem.

Ex 1c: Your school is selling football tickets for a home game. The school sold 35 tickets for \$86 on the first day of the sale. Student tickets cost \$2 each and non-student tickets cost \$3 each. Find the number of student tickets and non-student tickets sold.



7.2A I can use the substitution method to solve a system of equations.

Ex2a: Solve the linear system by using the substitution method:

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

7.2B I can use the substitution method to solve a multi-step problem.

Ex 2b: A food co-op is a business that usually offers special process on locally grown food and produce. Some co-ops are clubs, while others are retail stores. The weekly cost for seasonal produce offered by a club-based co-op is \$15 per week and \$17.50 per week for a retail-based co-op. The club-based co-op also charges a one time club fee of \$20. Find the number of weeks which the total cost of weekly produce will be the same.

7.3A I can use the adding method to solve a system of equations.

Ex 3a: Solve the linear system by using the adding method:

$$\begin{cases} 5x + 6y = 4 \\ -7x - 6y = -8 \end{cases}$$

7.3B I can use the adding method to solve a multi-step problem.

Ex 3b: Two friends are making their own greeting cards. They already have ink and stamps, but they will buy the postage stamps and cardstock. Stan needs 4 postage stamps and 2 packages of card stock. Lynn needs 7 postage stamps and 2 packages of card stock. If it costs Stan \$22.98 for his supplies and it costs Lynn \$32.73 for her supplies, how much does it cost for one postage stamp and one package of cardstock?

7.4A I can use the multiplication method to solve a system of equations.

Ex 4a: Solve the linear system by using the multiplication method:

$$\begin{cases} 2x - 3y = 6 \\ 4y = -7x - 8 \end{cases}$$

7.4B I can use the multiplication method to solve a multi-step problem.

Ex 4b: Mr. Bolton bought a total of 20 pounds of grass seed at the nursery for \$168. He paid \$9 per pound for Kentucky blue grass and \$6 per pound for Tall Fescue. How many pounds of each kind of grass did he buy?

7.5A I can identify the number of solutions of a linear system by graphing.

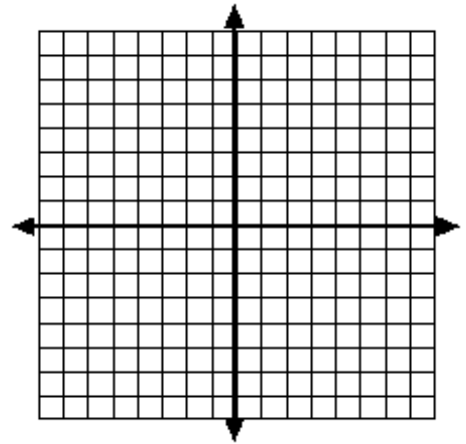
Ex 5a: Without solving the linear system, tell whether the linear system has one solution, no solution, or many solutions:

a.
$$\begin{cases} -3x + 5y = 6 \\ 6x - 10y = -12 \end{cases}$$

b.
$$\begin{cases} 9x - 5y = 12 \\ 9x - 5y = 8 \end{cases}$$

7.6A I can use the graphing method to solve a linear system of inequalities.

Ex 6a: Graph the system of inequalities:
$$\begin{cases} y < 3x \\ y \geq -2x + 1 \end{cases}$$



WPU 7.1 I can approach and solve real-life number and age problems.

Ex WPU 1: *One number is 3 times a second number. The larger number decreased by the smaller number is 18. Find the two numbers.*

WPU 7.2 I can approach and solve real-life coin and digit problems.

Ex WPU2: *The units digit of two digit number is two less than the tens digit. The number is two more than six times the sum of the digits. Find the number.*

WPU 7.3 I can approach and solve real-life wind and current problems.

Ex WPU3: *During a kayaking trip, a kayaker travels 12 miles upstream (against the current) in 3 hours and 12 miles downstream (with the current) in 2 hours. The speed of the current remained constant during the trip. What is the rate of the current?*