

Chap.8 (Sections 8.1-8.3 only)

READ: You must show work in order to receive credit.

- Determine if the ordered pair $(4, -2)$ is a solution to the system $\begin{cases} 2x + 3y = 2 \\ 3x = 2y + 16 \end{cases}$.
- Solve the system of equations by graphing. No credit is given to solutions found algebraically.

$$\begin{cases} x = -3 \\ 3y = 6 - 2x \end{cases}$$
- Solve the system of equations by substitution. $\begin{cases} -3y = -13 - 2x \\ 2x - y = -7 \end{cases}$
- Solve the system of equations by addition (elimination). $\begin{cases} 4m + 3n = 2 \\ 3m + 5n = -4 \end{cases}$
- Solve the system of equation by substitution or addition (elimination).

a) $\begin{cases} 5x - 7y = -16 \\ 2x + 8y = 26 \end{cases}$	b) $\begin{cases} \frac{2}{3}x + \frac{1}{5}y = 1 \\ \frac{1}{3}x - \frac{2}{5}y = 3 \end{cases}$	c) $\begin{cases} 0.3x + 0.2y = 0 \\ 2x - 3y = -13 \end{cases}$
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- Classify the system as consistent or inconsistent and independent or dependent. Show how you decide. $\begin{cases} y = -0.8x + 2 \\ 4x + 5y = -15 \end{cases}$
- A marine biologist wants to set up an aquarium containing 3% saltwater. He has two tanks on hand that contain 6% and 2% saltwater. How much water from each tank must be used to fill a 16-liter aquarium with a 3% saltwater mixture? Define any variables that you use and set up a system of equations.
- A merchant sells cashews for \$6.75 per pound and almonds for \$5.00 per pound. How much of each type should be used to make a 50-lb mixture that sells for \$5.70? Define any variable that you use and set up a system of equations.
- A boat can travel 24 miles down stream in 2 hours and can make the return trip in 3 hours. Find the speed of the boat in still water. Define any variable that you use and set up a system of equations.