1. Determine if the ordered pair $(4, -2)$ is a solution to the system \[
\begin{align*}
2x + 3y &= 2 \\
3x &= 2y + 16
\end{align*}
\]

2. Solve the system of equations by graphing. No credit is given to solutions found algebraically \[
\begin{align*}
x &= -3 \\
3y &= 6 - 2x
\end{align*}
\]

3. Solve the system of equations by substitution \[
\begin{align*}
-3y &= -13 - 2x \\
2x - y &= -7
\end{align*}
\]

4. Solve the system of equations by addition (elimination) \[
\begin{align*}
4m + 3n &= 2 \\
3m + 5n &= -4
\end{align*}
\]

5. Solve the system of equation by substitution or addition (elimination).
   a) \[
   \begin{align*}
   5x - 7y &= -16 \\
   2x + 8y &= 26
   \end{align*}
   \]
   b) \[
   \begin{align*}
   \frac{2}{3}x + \frac{1}{5}y &= 1 \\
   \frac{1}{3}x - \frac{2}{5}y &= 3
   \end{align*}
   \]
   c) \[
   \begin{align*}
   0.3x + 0.2y &= 0 \\
   2x - 3y &= -13
   \end{align*}
   \]

7. Classify the system as consistent or inconsistent and independent or dependent. Show how you decide. \[
\begin{align*}
y &= -0.8x + 2 \\
4x + 5y &= -15
\end{align*}
\]

8. 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.

9. 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.

10. 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.