## 7.1-7.2 Study Guide

Solve a System of Equations by Graphing or Substitution

## 7.1: Solve Systems of Equations by Graphing:

- Be able to identify an ordered pair as a solution to a system

$$
\text { Ex: Is }(5,2) \text { a solution to the system: } \quad \begin{aligned}
& 2 x-3 y=4 \\
& 2 x+8 y=11
\end{aligned}
$$

- Be able to find a solution to a system of equations by graphing

Ex: Solve the system by graphing:

$$
2 y-4 x=12
$$

$$
6 x+3 y=-6
$$



## 7.2: Solve Systems of Equations by Substitution:

- Be able to solve a system of equations by substitution

$$
\begin{aligned}
\text { Ex: } & y=x-2 \\
x & =17-4 y
\end{aligned}
$$

Ex: $\begin{aligned} 5 x+2 y=9 \\ x+y=-3\end{aligned}$
$x+y=-3$

Ex: $y=x-4$
$y=18+2 x$

- Be able to write a linear system and solve

Ex: John and David went to the store to buy notebooks and markers. John bought one notebook and two boxes of markers and spent $\$ 11$. David bought three notebooks and five boxes of markers and spent $\$ 29$.
a) Identify two variables to represent what you do not know.
b) Write a system of equations to represent the situation.
c) Find the cost of a notebook. Find the cost of a box of markers.
d) Find the total cost if someone wanted to buy three notebooks and two boxes of markers.

