$\qquad$ Block: $\qquad$

### 9.1 Solving Linear Systems by Substitution

## Bell Work

\#1

| $\square$ | $\square$ | Row sum <br> $=46$ |  |
| :--- | :---: | :---: | :---: |
| $\square$ | $\square$ | Row sum <br> $=27$ |  |
|  | $\square$ | Row sum <br> $=32$ |  |
|  |  | $\square$ |  |

\#3

| $\square$ | $\square$ | $\triangle$ | Row sum <br> $=56$ |
| :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $\square$ | Row sum <br> $=47$ |
| $\square$ | $\triangle$ | $\square$ | Row sum <br> $=55$ |
| $\triangle$ | $\square$ | $\triangle$ | Row sum <br> $=64$ |
| Column <br> sum $=72$ | Column <br> sum $=71$ | Column <br> sum $=79$ |  |

$\Delta$
$\qquad$

$\square$ $\square$.
\#2

| $\square$ | $\square$ | Row sum <br> $=46$ |
| :--- | :---: | :---: | :---: |
| $\square$ | $\square$ | Row sum <br> $=18$ |
| $\triangle$ | $\square$ | Row sum <br> $=40$ |
| Column <br> sum $=60$ | Column <br> sum $=52$ <br> sum |  |

\#4

| $\triangle$ $\triangle$ $\bigcirc$ Row sum <br> $=42$ <br> $\triangle$ $\square$ $\square$ Row sum <br> $=18$ <br> $\triangle$ $\square$ $\square$ Row sum <br> $=27$ <br>  $\square$ Row sum <br> $=30$  <br> Column <br> sum $=50$ Column <br> sum $=32$ Column <br> sum $=35$  |
| :--- |

## Vocabulary

$\qquad$ , substitute that value into the other equation, and solve for the other variable

Example 1: Solve using substitution.
$4 x+5 y=26$
$3 x=y-9$

Example 2: Tony invested $\$ 2000$, part at an annual interest rate of $8 \%$ and the rest at an annual interest rate of $10 \%$. After one year, the total interest was $\$ 190$.
a) Create a linear system to model this situation.
b) Solve. How much money did Tony invest at each rate?

Example 3: Admission to an airshow costs $\$ 80$ for a car with 2 adults and 3 kids. Admission for a car with 2 adults is $\$ 50$. Determine the cost for one child and one adult.

## Your Turn:

1. Solve using substitution.
$2 x-4 y=7$
$4 x+y=5$
2. Jackson invested $\$ 1800$, part at an annual interest rate of $3.5 \%$ and the rest at an annual interest rate of $4.5 \%$. After one year, the total interest was $\$ 73$.
a. Create a linear system to model this situation.
b. Solve. How much money did Jackson invest at each rate?
