## ALGEBRA II

## Chapter 3 section 2

Solve Linear Systems Algebraically
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FOCUS:
How do you solve a system of linear equations algebraically?
VOCAB:
Substitution method: $\qquad$

Elimination method: $\qquad$

WARM - UP:

1. Evaluate $-3 x-5 y$ for $x=-3$ and $y=4$ $\qquad$ 2. Solve the system by graphing.
$x+y=2$
$2 x+y=3$
2. Twice a number $x$ plus a number $y$ is 3 . The number $y$ subtracted from three times the number $x$ is 7 . Find $x$ and $y$ by graphing.


## NOTES:

Solve the system using the substitution method.
$3 x+2 y=1$

$$
\begin{aligned}
& 4 x+3 y=-2 \\
& x+5 y=-9
\end{aligned}
$$

Solve the system using the elimination method.
$8 x+2 y=4$

$$
3 x+3 y=-15
$$

$$
-2 x+3 y=13
$$

$$
5 x-9 y=3
$$

At a pizza restaurant it costs $\$ 4$ to make a small pizza that sells for $\$ 12$, and it costs $\$ 6$ to make a large pizza that sells for $\$ 15$. In one week, the restaurant spent a total of $\$ 1100$ making pizzas and sold all of them for $\$ 2910$. How many small pizzas were sold?

Solve the linear system.
$2 x-3 y=4$

$$
x-y=4
$$

$$
6 x-9 y=8
$$

$$
-6 x+6 y=-24
$$

Let's see if you comprehended what we worked on in class...

