## M10-9.1-Substitution HW

## Solve by Substitution

$$
y=x+2 \quad y=2 x
$$



$$
y=-x+2 \quad y=3 x-2
$$



$$
y=-2 x+3 \quad y=x-3
$$



## M10-9.1-Substitution HW

Solve by Substitution
$y=x+2$
$x+y=4$

$x=y-1$
$y-2 x=4$

$y=2 x+1$
$x-y=-2$


## M10-9.2-Isolate Substitution HW

Solve by Substitution

$$
\begin{array}{ll}
x+y=2 & y-x=4 \\
x+y=3 & 2 y+10= \\
2 x+y
\end{array}
$$


$4 x+2 y=6$
$-8 x=4 y-12$



## M10-9.3-Elimination HW

Solve by Elimination

$$
y+4 x=0 \quad y-x=5
$$


$2 y=2 x+4$
$y=-2 x+5$

$-x-y=4$
$-x+y=-4$


## M10-9.4-Line Up Elimination HW

Solve by Elimination
$-2 x+2 y=6$
$y=-2 x+6$

$3 y+2 x=-12$
$3 y+3=x$

$-2 x+5=y$
$-2 y=-2 x-4$


## M10-9.5-Multiply Elimination HW

## Solve by Elimination

$y=-3 x+3$
$2 y=x-8$

$3 y=-2 x-12$
$9 y=3 x-9$
$2 y=3 x+4$
$3 y=-4 x+6$



## M10-9.5-Frac Elimination HW

Solve by Elimination
$y=3 x-2$
$\frac{y}{2}=\frac{3 x}{2}-1$

$y=-\frac{2}{3} x-4$
$y=\frac{1}{3} x-1$

$\frac{y}{2}=\frac{1}{3} x+1$
$y=x+1$


## M10-9.5-Sub/Elim Rev HW

## Solve by Substitution

$$
\begin{aligned}
& y=x+2 \\
& y=2 x
\end{aligned}
$$

$$
\begin{aligned}
& y=x+2 \\
& x+y=4
\end{aligned}
$$

$$
\begin{gathered}
x=y-1 \\
y-2 x=4
\end{gathered}
$$

$$
x+y=2
$$

$$
y-x=4
$$

$$
\begin{gathered}
2 x+y=3 \\
2 y+10=4 x
\end{gathered}
$$

## Solve by Elimination

$$
\begin{array}{r}
y+4 x=0 \\
y-x=5
\end{array}
$$

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

$$
\begin{gathered}
-2 x+2 y=6 \\
y=-2 x+6
\end{gathered}
$$

$$
\begin{aligned}
& 3 y+2 x=-12 \\
& 3 y+3=x
\end{aligned}
$$

$$
\begin{aligned}
y & =-3 x+3 \\
2 y & =x-8
\end{aligned}
$$

$$
\begin{aligned}
& 3 y=-2 x-12 \\
& 9 y=3 x-9
\end{aligned}
$$

$$
\begin{gathered}
y=3 x-2 \\
\frac{y}{2}=\frac{3 x}{2}-1
\end{gathered}
$$

$$
\begin{aligned}
& y=-\frac{2}{3} x-4 \\
& y=\frac{1}{3} x-1
\end{aligned}
$$

$$
y=-2 x+3
$$

$$
y=x-3
$$

$$
y=2 x+1
$$

$$
x-y=-2
$$

$$
4 x+2 y=6
$$

$$
-8 x=-4 y-10
$$

$$
\begin{aligned}
& -x-y=4 \\
& -x+y=-4
\end{aligned}
$$

$$
\begin{gathered}
-2 x+4=y \\
-2 y=-2 x-4
\end{gathered}
$$

$$
\begin{aligned}
& 2 y=3 x+4 \\
& 3 y=-4 x+6
\end{aligned}
$$

$$
\frac{y}{2}=\frac{1}{3} x+1
$$

$$
y=x+1
$$

## M10-9.6- Let Statements Systems of Equations Notes

Write Let Statements and an Expression or Equation in either form.
$a x+b y=c$
$y=m x+b$

A person has some Loonies.

A person has 24 Total coins in Dimes and Quarters.

A person has some Nickels and Dimes.

A person has 16 Total coins in Nickels and Pennies.

A person has some Nickels. How much do they have in Nickels?

A person has Quarters and Dimes. How much money do they have?

A person has Dimes and Quarters worth $\$ 4.50$.

A person has loonies and toonies worth seven dollars.

A person deposits two dollars per day into a bank account with $\$ 100$ in the account to start.

The Cost of a truck is $\$ 250$ per month plus \$0.2 per kilometer.

An Bird swops down at 5 meters per second from a height of 2000 meters.

## M10-9.6-Coin Solve Systems of Equations Notes

A person has 16 total coins of Dimes and Loonies worth $\$ 8.80$, How many Dimes and Loonies do they have?

A person has 22 total coins of Quarters and Dimes worth $\$ 5.20$, How many Quarters and Dimes do they have?

A person spends $\$ 17.40$ on 12 kg of bulk Candy at $\$ 1.20 / \mathrm{kg}$ and $\$ 1.80 / \mathrm{kg}$ ? How much did they spend on each?

## M10-9.6-Investment/Weights WS

Mark invests a total of $\$ 2800$ in a $12 \%$ bond and an $8 \%$ bond earning $\$ 288$. How much did he invest in each?

Marie invests a total of $\$ 3400$ in a $9 \%$ bond and an $11 \%$ bond earning $\$ 366$. How much did she invest in each?

## M10-9.6 - Wind and Current WS

A boat took 3 hrs to travel 24 km with a current and 5 hrs to return. What is the speed of the boat in still water?

A plane travels 780 km in 4 hours with a headwind. It takes 3 hours to return with a tailwind. What is the wind speed?

## M10-9.6-y=mx+b Equations

Joe has 2 dollars in the bank and deposits 3 dollars per day. Mary has 12 dollars in the bank and spends 2 dollars per day. Find the intersection and state its meaning.

One cell phone company charges $\$ 40$ per month and five dollars a gigabyte of data. Another cell phone company charges $\$ 20$ per month and $\$ 10$ a gigabyte of data. Find the intersection and students meaning.

Joe has 1 dollars in the bank and deposits 2 dollars per day. Mary has 4 dollars in the bank and spends 1 dollars per day. Find the intersection and state its meaning.

One car company sells a car for $\$ 50,000$ and depreciate at five dollars per year. Another car company sells cars for $\$ 80,000$ and depreciate that $\$ 10,000$ per year. Find the intersection and stayed its meaning.

