## Algebra II Lesson \#4 Unit 2

## Class Worksheet \#4

## For Worksheet \#5

## Solving Systems of Two Linear Equations With Two Variables

## Solving Systems of Two Linear Equations With Two Variables

## The graph of every linear equation with two variables is a straight line.

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## Solving Systems of Two Linear Equations With Two Variables

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $x, y$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation.

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## Case 1 - Dependent System:

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $\mathbf{x}, \mathrm{y}$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

Case 1 - Dependent System: The two equations represent the same line.

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Case 1 - Dependent System: The two equations represent the same line. In this case, any ordered pair that is a solution of one of the equations is a solution of the system.

Solving Systems of Two Linear Equations With Two Variables


#### Abstract

The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $\mathbf{x}, \mathrm{y}$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.


Case 1 - Dependent System: The two equations represent the same line. In this case, any ordered pair that is a solution of one of the equations is a solution of the system. This type of system has an infinite number of solutions.

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $x, y$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

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Case 2 - Inconsistent System:

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $x, y$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

Case 2 - Inconsistent System: The two equations represent two parallel lines.

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $\mathbf{x}, \mathrm{y}$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

Case 2 - Inconsistent System: The two equations represent two parallel lines. This type of system has no solution since there are no ordered pairs that make both equations true.

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The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $x, y$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

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Case 3 - Independent System:

Solving Systems of Two Linear Equations With Two Variables
The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $\mathbf{x}, \mathrm{y}$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

Case 3 - Independent System: The two equations represent two non-parallel lines.

Solving Systems of Two Linear Equations With Two Variables
The graph of every linear equation with two variables is a straight line. We are considering a 'system' of two linear equations with two variables. To solve the system means to find all ordered pairs ( $\mathbf{x}, \mathrm{y}$ ) which make both equations true. Graphically, a solution of the system is any point (ordered pair) in common to each equation. There are three possible cases.

Case 3 - Independent System: The two equations represent two non-parallel lines. This type of system has exactly one solution since two non-parallel lines in a plane intersect at exactly one point.

## Solving Systems of Two Linear Equations With Two Variables

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Class worksheet \#4 reviews 3 common methods used to solve independent systems.

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## Solving Systems of Two Linear Equations With Two Variables

Class worksheet \#4 reviews 3 common methods used to solve independent systems. They are (1) the graphing method, (2) the substitution method, and (3) the multiplication-addition method (also known as the linear combination method).

## The Graphing Method:

## Solving Systems of Two Linear Equations With Two Variables

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The Graphing Method: Simply graph both equations.

## Solving Systems of Two Linear Equations With Two Variables

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> The Graphing Method: Simply graph both equations. The solution of the system is the ordered pair corresponding to the point where the two lines intersect.

## Solving Systems of Two Linear Equations With Two Variables

> Class worksheet \#4 reviews 3 common methods used to solve independent systems. They are (1) the graphing method, (2) the substitution method, and (3) the multiplication-addition method (also known as the linear combination method).

> The Graphing Method: Simply graph both equations. The solution of the system is the ordered pair corresponding to the point where the two lines intersect. Good luck.

## Solving Systems of Two Linear Equations With Two Variables

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

1. $2 \mathrm{x}+3 \mathrm{y}=9$
$\mathbf{x}=$
$x-y=2$
$\mathbf{y}=$ $\qquad$


## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

1. $2 x+3 y=9$

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Solve the following systems of equations using the graphing method.

$$
\begin{array}{ll}
\text { 1. } 2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & \\
3 y= &
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

$$
\begin{array}{ll}
\text { 1. } 2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & \\
3 y=-2 x &
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

$$
\begin{aligned}
& \text { 1. } 2 x+3 y=9 \\
& \mathbf{x}= \\
& x-y=2 \\
& \mathrm{y}= \\
& 2 \mathrm{x}+3 \mathrm{y}=9 \\
& 3 y=-2 x+9
\end{aligned}
$$

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Solve the following systems of equations using the graphing method.

$$
\begin{array}{ll}
\text { 1. } 2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & \\
3 y=-2 x+9 & \\
y=
\end{array}
$$

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Solve the following systems of equations using the graphing method.

$$
\begin{array}{ll}
\text { 1. } 2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & \\
3 y=-2 x+9 & \\
y=-\frac{2}{3} x &
\end{array}
$$

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\begin{array}{ll}
\text { 1. } 2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & \\
3 y=-2 x+9 & \\
y=-\frac{2}{3} x+3 &
\end{array}
$$

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\end{array}
$$

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\begin{array}{ll}
\begin{array}{c}
\text { 1. } 2 x+3 y=9 \\
x-y=2
\end{array} & x= \\
2 x+3 y=9 & \\
3 y=-2 x+9 & \\
y=-\frac{2}{3} x+3 & \\
& \\
& \\
\hline
\end{array}
$$

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\begin{aligned}
& \text { 1. } 2 x+3 y=9 \\
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& \mathbf{y}=
\end{aligned}
$$

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\begin{aligned}
& \text { 1. } 2 x+3 y=9 \quad x= \\
& x-y=2 \\
& \mathbf{y}= \\
& 2 x+3 y=9 \\
& \mathbf{x}-\mathrm{y}=\mathbf{2} \\
& 3 y=-2 x+9 \quad-y= \\
& y=-\frac{2}{3} x+3
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

$$
\begin{aligned}
& \text { 1. } 2 x+3 y=9 \\
& \mathbf{x}= \\
& \mathbf{x}-\mathbf{y}=\mathbf{2} \\
& \mathrm{y}= \\
& 2 x+3 y=9 \\
& \mathbf{x}-\mathrm{y}=2 \\
& 3 y=-2 x+9 \quad-y=-x \\
& y=-\frac{2}{3} x+3
\end{aligned}
$$

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Solve the following systems of equations using the graphing method.

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

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$$
\begin{aligned}
& \text { 1. } 2 x+3 y=9 \quad x= \\
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& \mathbf{y}= \\
& 2 \mathrm{x}+3 \mathrm{y}=9 \\
& \mathbf{x}-\mathrm{y}=\mathbf{2} \\
& 3 y=-2 x+9 \quad-y=-x+2 \\
& y=-\frac{2}{3} x+3 \\
& y=x-2
\end{aligned}
$$

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Solve the following systems of equations using the graphing method.

$$
\begin{array}{cc}
\text { 1. } \begin{array}{cc}
2 x+3 y=9 & x= \\
x-y=2 & y= \\
2 x+3 y=9 & x-y=2 \\
3 y=-2 x+9 & -y=-x+2 \\
y=-\frac{2}{3} x+3 & y=x-2
\end{array},
\end{array}
$$

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$$
\begin{array}{ll}
\text { 1. } \left.\begin{array}{cc}
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x-y=2 & y= \\
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\end{array}\right)
\end{array}
$$

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\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

$$
\begin{array}{ccc}
\text { 1. } 2 x+3 y=9 & x=3 \\
x-y=2 & y=\underline{1} & \\
2 x+3 y=9 & x-y=2 & \\
3 y=-2 x+9 & -y=-x+2 \\
y=-\frac{2}{3} x+3 & y=x-2
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.

1. $2 x+3 y=9$

$$
\mathbf{x}=\underline{3}
$$

$$
\mathbf{x}-\mathbf{y}=\mathbf{2}
$$

$$
y=1
$$



$$
\begin{array}{cc}
2 x+3 y=9 & x-y=2 \\
3 y=-2 x+9 & -y=-x+2 \\
y=-\frac{2}{3} x+3 & y=x-2
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{ll}
x-2 y=-8 & x= \\
x+y=-2 & y=
\end{array}
$$



## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
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## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
x-2 y=-8
$$

$$
-2 y=-x-8
$$

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

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
x-2 y=-8
$$

$$
-2 y=-x-8
$$

$$
y=\frac{1}{2} x+4
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{cl}
x-2 y=-8 & x= \\
x+y=-2 & y=
\end{array}
$$

$$
x-2 y=-8
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$$
-2 y=-x-8
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$$
y=\frac{1}{2} x+4
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$$

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$$
x-2 y=-8
$$

$$
x+y=-2
$$

$-2 y=-x-8$

$$
y=\frac{1}{2} x+4
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{ll}
x-2 y=-8 & x+y=-2 \\
-2 y=-x-8 & y= \\
y=\frac{1}{2} x+4 &
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{ll}
x-2 y=-8 & x+y=-2 \\
-2 y=-x-8 & y=-x \\
y=\frac{1}{2} x+4 &
\end{array}
$$

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Solve the following systems of equations using the graphing method.
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$$
x-2 y=-8
$$

$$
x+y=-2
$$

$-2 y=-x-8$
$y=-x-2$
$y=\frac{1}{2} x+4$


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Solve the following systems of equations using the graphing method.
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$$
\begin{array}{ll}
x-2 y=-8 & x+y=-2 \\
-2 y=-x-8 & y=-x-2 \\
y=\frac{1}{2} x+4 &
\end{array}
$$



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Solve the following systems of equations using the graphing method.
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-2 y=-x-8 & y=-x-2 \\
y=\frac{1}{2} x+4 &
\end{array}
$$



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Solve the following systems of equations using the graphing method.
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$$
\begin{array}{ll}
x-2 y=-8 & x+y=-2 \\
-2 y=-x-8 & y=-x-2 \\
y=\frac{1}{2} x+4 &
\end{array}
$$



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Solve the following systems of equations using the graphing method.
2.

$$
x-2 y=-8
$$

$$
x+y=-2
$$

$-2 y=-x-8$
$y=-x-2$
$y=\frac{1}{2} x+4$


## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{cl}
x-2 y=-8 & x=-4 \\
x+y=-2 & y=2
\end{array}
$$



$$
\begin{array}{ll}
x-2 y=-8 & x+y=-2 \\
-2 y=-x-8 & y=-x-2 \\
y=\frac{1}{2} x+4 &
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the graphing method.
2.

$$
\begin{array}{rl}
x-2 y=-8 & x=-4 \\
x+y=-2 & y=2
\end{array}
$$

$$
x-2 y=-8
$$

$$
x+y=-2
$$

$-2 y=-x-8$
$y=-x-2$

$$
y=\frac{1}{2} x+4
$$



## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{cc}
2 x+3 y=1 & x= \\
y=3 x-7 & y=
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
3. $2 x+3 y=1$
$\mathbf{x}=$ $\qquad$
$y=3 x-7$
$\mathrm{y}=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
3. $2 x+3 y=1$
$\mathbf{x}=$ $\qquad$
$y=3 x-7$
$\mathrm{y}=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
3. $2 x+3 y=1$
$\mathbf{x}=$ $\qquad$

$$
y=3 x-7
$$

$$
\mathbf{y}=
$$

$\qquad$

Notice that the second equation gives $y$ in terms of $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $y$ in the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
3. $2 x+3 y=1 \quad x=$ $\qquad$

$$
y=3 x-7 \quad y=
$$

$\qquad$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $y$ in the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{ll}
2 x+3 y=1 & x= \\
y=3 x-7 & y=
\end{array}
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $y$ in the first equation.

2x

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3($

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $y$ in the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
3. $\begin{array}{cc}2 x+3 y=1 & x= \\ y=3 x-7 & y=\end{array}$
$2 x+3(3 x-7)$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $y$ in the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{lll}
\text { 3. } & 2 x+3 y=1 & x= \\
y=3 x-7 & y=
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ 2x

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $\mathbf{2 x}+9 \mathrm{x}$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$
$2 x+9 x-21$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 \mathrm{x}+9 \mathrm{x}-21=1$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 x+9 x-21=1$

11x

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 x+9 x-21=1$

11x-21

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 \mathrm{x}+9 \mathrm{x}-21=1$
$11 x-21=1$
$11 x=$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $y$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 x+9 x-21=1$
$11 x-21=1$
$11 x=22$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 x+9 x-21=1$
$11 x-21=1$
$11 x=22$
$\mathbf{x}=$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2 x+3(3 x-7)=1$ $2 x+9 x-21=1$
$11 x-21=1$
$11 x=22$
$\mathrm{x}=2$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{rl}
3 . & 2 x+3 y=1 \\
y=3 x-7 & y= \\
\hline
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

$$
11 x=22
$$

$$
x=2
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{rl}
2 x+3 y=1 & x=2 \\
y=3 x-7 & y= \\
\hline
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

$$
11 x=22
$$

$$
x=2
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{cc}
\text { 3. } 2 x+3 y=1 & x=\underline{2} \\
y=3 x-7 & y=
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1 \quad y=3 x-7
$$

$$
11 x=22
$$

$$
x=2
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{ll}
\text { 3. } & 2 x+3 y=1 \\
& x=3 x-7
\end{array} \quad y=\underline{2}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
\begin{array}{l|l}
11 x-21=1 & y=3 x-7
\end{array}
$$

$$
11 x=22
$$

$$
x=2
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{ll}
2 x+3 y=1 & x=\underline{2} \\
& y=3 x-7
\end{array} \quad y=
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
\begin{array}{l|l}
11 x-21=1 & y=3 x-7
\end{array}
$$

$$
11 x=22
$$

$$
\mathbf{y}=
$$

$$
x=2
$$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $\mathbf{y}$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{lll}
\text { 3. } & 2 x+3 y=1 & x=\underline{2} \\
& y=3 x-7 & y= \\
\hline
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1 \quad y=3 x-7
$$

$$
\begin{array}{l|l}
11 x=22 & y=6
\end{array}
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\begin{array}{lll}
\text { 3. } & 2 x+3 y=1 & x=\underline{2} \\
& y=3 x-7 & y= \\
\hline
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

$$
\begin{array}{l|l}
11 x=22 & y=6-7
\end{array}
$$

Notice that the second equation gives $y$ in terms of $x$. Substitute this expression in for $\mathbf{y}$ in the first equation. Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{cl}
2 x+3 y=1 & x=2 \\
y=3 x-7 & y=
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
\begin{array}{l|l}
11 x-21=1 & y=3 x-7
\end{array}
$$

$$
\begin{array}{l|l}
11 x=22 & y=6-7
\end{array}
$$

$$
x=2
$$

$$
\mathbf{y}=
$$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $\mathbf{y}$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{cc}
2 x+3 y=1 & x=2 \\
y=3 x-7 & y=
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

$$
11 x=22
$$

$$
x=2 \longleftrightarrow y=-1
$$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $\mathbf{y}$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 3. } \begin{array}{rl}
2 x+3 y=1 & x=-2 \\
y=3 x-7 & y=-1
\end{array}
$$

$$
2 x+3(3 x-7)=1
$$

$$
2 x+9 x-21=1
$$

$$
11 x-21=1
$$

$$
11 x=22
$$

$$
x=2 \longleftrightarrow y=-1
$$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $y$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

3. | $2 x+3 y=1$ | $x=-2$ |
| :---: | :---: |
| $y=3 x-7$ | $y=-1$ |

$$
\begin{aligned}
& 2 x+3(3 x-7)=1 \\
& 2 x+9 x-21=1 \\
& \cline { 2 - 3 } 11 x-21=1 \\
& 11 x=22
\end{aligned} \begin{aligned}
& y=3 x-7 \\
& x=2
\end{aligned} \begin{aligned}
& y=6-7 \\
& y=-1
\end{aligned}
$$

Notice that the second equation gives $y$ in terms of $x$.
Substitute this expression in for $y$ in the first equation.
Now solve for $x$.
Now, substitute again to find $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
4. $x=4 y+3$

$$
2 x-7 y=4 \quad y=
$$

$\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
4. $x=4 y+3$
$\mathbf{x}=$ $\qquad$

$$
2 x-7 y=4
$$

$$
\mathbf{y}=
$$

$\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
4. $x=4 y+3$

$$
\mathbf{x}=
$$

$\qquad$

$$
2 x-7 y=4
$$

$$
\mathbf{y}=
$$

$\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{cc}
x=4 y+3 & x= \\
2 x-7 y=4 & y= \\
\hline
\end{array}
$$

Notice that the first equation gives $x$ in terms of $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$. Substitute this expression in for $x$ in the second equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$. Substitute this expression in for x in the second equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation.

$$
2(4 y+3)-7 y=4
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2(4 y+3)-7 y=4$
8y

Notice that the first equation gives $x$ in terms of $y$. Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
\mathbf{y}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
\mathbf{y}=
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$2(4 y+3)-7 y=4$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
\begin{gathered}
8 y+6-7 y=4 \\
y+6=4 \\
y=-2
\end{gathered}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.
4. $\begin{array}{rl}x=4 y+3 & x= \\ 2 x-7 y=4 & y=-2\end{array}$

$$
2(4 y+3)-7 y=4
$$

$$
\begin{gathered}
8 y+6-7 y=4 \\
y+6=4 \\
y=-2
\end{gathered}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } x=4 y+3 \quad x=
$$

$$
\begin{gathered}
2 x-7 y=4 \\
2(4 y+3)-7 y=4
\end{gathered}
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$. Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{cc}
x=4 y+3 & x= \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
\begin{gathered}
2 x-7 y=4 \\
2(4 y+3)-7 y=4
\end{gathered}
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

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

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{rl}
x=4 y+3 & x= \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
\begin{gathered}
2 x-7 y=4 \\
2(4 y+3)-7 y=4
\end{gathered}
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

$$
\begin{aligned}
& x=4 y+3 \\
& x=-8
\end{aligned}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{rl}
x=4 y+3 & x= \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
\begin{gathered}
2 x-7 y=4 \\
2(4 y+3)-7 y=4
\end{gathered}
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

$$
\begin{aligned}
& x=4 y+3 \\
& x=-8+3
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{rl}
x=4 y+3 & x= \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
\begin{gathered}
2 x-7 y=4 \\
2(4 y+3)-7 y=4
\end{gathered}
$$

$$
\begin{gathered}
8 y+6-7 y=4 \\
y+6=4 \\
y=-2
\end{gathered}
$$

$$
\begin{aligned}
& x=4 y+3 \\
& x=-8+3 \\
& x=
\end{aligned}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $\mathbf{y}$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.


$$
2(4 y+3)-7 y=4
$$

$$
\begin{array}{c|l}
8 y+6-7 y=4 \\
y+6=4 & x=4 y+3 \\
y=-2 & x=-8+3 \\
x=-5
\end{array}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{rl}
x=4 y+3 & x=-5 \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

$$
\begin{aligned}
& x=4 y+3 \\
& x=-8+3 \\
& x=-5
\end{aligned}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the substitution method.

$$
\text { 4. } \begin{array}{rl}
x=4 y+3 & x=-5 \\
2 x-7 y=4 & y=-2
\end{array}
$$

$$
2(4 y+3)-7 y=4
$$

$$
8 y+6-7 y=4
$$

$$
y+6=4
$$

$$
y=-2
$$

$$
4
$$

$$
\begin{aligned}
& x=4 y+3 \\
& x=-8+3 \\
& x=-5
\end{aligned}
$$

Notice that the first equation gives $x$ in terms of $y$.
Substitute this expression in for $x$ in the second equation. Now solve for $y$.
Now, substitute again to find $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
5. $4 x-3 y=26 \quad x=$ $\qquad$

$$
2 x+y=8 \quad y=
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
5. $4 x-3 y=26$
$\mathbf{x}=$ $\qquad$
$2 x+y=8 \quad y=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
5. $4 x-3 y=26 \quad x=$ $\qquad$

$$
2 x+y=8 \quad y=
$$

Notice that both equations are in 'standard form' $(\mathbf{A x}+\mathbf{B y}=\mathbf{C})$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
5. $4 x-3 y=26$
$\mathbf{x}=$ $\qquad$
$2 x+y=8 \quad y=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{lll}
\text { 5. } & 4 x-3 y=26 & x= \\
2 x+y=8 & y=
\end{array}
$$

To solve for $x$, you must eliminate the y-terms.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{lll}
\text { 5. } & 4 x-3 y=26 & x= \\
2 x+y=8 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
5 . & 4 x-3 y=26 \\
2 x+y=8 & y=
\end{array}
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
5 . & 4 x-3 y=26 \\
2 x+y=8 & y= \\
\hline
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.

$$
4 x-3 y=26
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
\text { 5. } \rightarrow 4 x-3 y=26 & x= \\
2 x+y=8 & y=
\end{array}
$$

$$
4 x-3 y=26
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation. Multiply both sides of the second equation by 3 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{ll}
\text { 5. } \rightarrow 4 x-3 y=26 & x= \\
\quad 32 x+y=8 & y= \\
4 x-3 y=26 & \\
6 x &
\end{array}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cl}
\text { 5. } \rightarrow 4 x-3 y=26 & x= \\
\xrightarrow{3} 2 x+y=8 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation. Multiply both sides of the second equation by 3 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cl}
\text { 5. } \rightarrow 4 x-3 y=26 & x= \\
\xrightarrow[3]{3} 2 x+y=8 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation. Multiply both sides of the second equation by 3 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{ll}
\text { 5. } \rightarrow 4 x-3 y=26 & x= \\
\xrightarrow[3]{3} 2 x+y=8 & y= \\
4 x-3 y=26 & \\
6 x+3 y=24 & \\
\hline
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation. Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& \text { 10x } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& \mathbf{x}=
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x= \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Bring down the first equation. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Bring down the first equation. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \longmapsto x=\underline{5} \\
& \xrightarrow{3} 2 x+y=8 \quad y= \\
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
\text { 5. } \rightarrow 4 x-3 y=26 & x=\begin{array}{l}
4 \\
3 \\
3 x+y=8
\end{array} \\
& y= \\
4 x-3 y=26 & 4 x-3 y=26 \\
\frac{6 x+3 y=24}{10 x=50} & \\
x=5 &
\end{array}
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \stackrel{3}{3} 2 x+y=8 \stackrel{-2}{2} \quad y= \\
& \text { - } \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \xrightarrow{3} 2 x+y=8 \xrightarrow{-2} \quad y= \\
& \text { - } \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& 6 x+3 y=24 \quad-4 x \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \stackrel{3}{3} 2 x+y=8 \stackrel{-2}{2} \quad y= \\
& \text { - } \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& 6 x+3 y=24 \quad-4 x-2 y \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

To solve for $x$, you must eliminate the y-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \stackrel{3}{3} 2 x+y=8 \stackrel{-2}{2} \quad y= \\
& \text { - } \\
& \begin{aligned}
& 4 x-3 y=26 \\
& 6 x+3 y=24 \\
& \hline
\end{aligned} \quad \begin{aligned}
4 x-3 y & =26 \\
-4 x-2 y & =-16
\end{aligned} \\
& 10 x=50 \\
& x=5
\end{aligned}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cr}
\text { 5. } \quad 4 x-3 y=26 & x=5 \\
32 x+y=8 & y= \\
3 & -2 \\
4 x-3 y=26 & 4 x-3 y=26 \\
6 x+3 y=24 & -4 x-2 y=-16 \\
\frac{10 x=50}{} & \\
x=5 &
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.
Now add the equations and solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8^{-2} \quad y= \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& 6 x+3 y=24 \quad-4 x-2 y=-16 \\
& 10 x=50 \\
& x=5 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 2} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=5 \quad \text { To solve for } x \text {, you must } \\
& \xrightarrow{3} 2 x+y=8^{-2} \quad y= \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& \underline{6 x+3 y=24 \quad-4 x-2 y=-16} \\
& 10 x=50 \\
& -5 y \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 2} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
\text { 5. } \rightarrow 4 x-3 y=26 & x=\underline{5} \\
\stackrel{3}{\rightarrow} 2 x+y=8 & y= \\
4 x-3 y=26 & 4 x-3 y=26 \\
6 x+3 y=24 & \\
\begin{array}{cc}
-4 x-2 y=-16 \\
\hline 10 x=50 &
\end{array} & \begin{array}{l}
-5 y=10 \\
x=5
\end{array}
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.
Now add the equations and solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \stackrel{3}{3} 2 x+y=8 \stackrel{-2}{2} \quad y= \\
& \text { - } \\
& \begin{array}{cc}
4 x-3 y=26 \\
6 x+3 y=24
\end{array} \quad \begin{array}{c}
4 x-3 y=26 \\
\cline { 1 - 3 }+4 x-2 y=-16 \\
\cline { 3 - 4 }=5
\end{array} \quad \begin{array}{c}
-5 y=10 \\
y
\end{array}
\end{aligned}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.
Now add the equations and solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{cc}
\text { 5. } 4 x-3 y=26 & x=5 \\
3 \\
3 x+y=8 & y= \\
4 x-3 y=26 & 4 x-3 y=26 \\
6 x+3 y=24 & \frac{-4 x-2 y=-16}{-5 y=10} \\
\hline 10 x=50 & \\
x=5 & y=-2
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.
Now add the equations and solve for $y$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \quad x=\underline{5} \\
& \xrightarrow{3} 2 x+y=8 \xrightarrow{-2} \quad y=-2 \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& 6 x+3 y=24 \quad-4 x-2 y=-16 \\
& 10 x=50 \\
& -5 y=10 \\
& x=5 \\
& y=-2
\end{aligned}
$$

To solve for $x$, you must eliminate the $y$-terms. Bring down the first equation.
Multiply both sides of the second equation by 3 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms. Bring down the first equation. Multiply both sides of the second equation by $\mathbf{- 2}$.
Now add the equations and solve for $\mathbf{y}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 5. } \rightarrow 4 x-3 y=26 \longmapsto x=\underline{5} \\
& \xrightarrow{3} 2 x+y=8^{-2} \quad y=\underline{-2} \\
& 4 x-3 y=26 \quad 4 x-3 y=26 \\
& \underline{6 x+3 y=24 \quad-4 x-2 y=-16} \\
& 10 x=50 \\
& -5 y=10 \\
& \mathrm{x}=5 \\
& y=-2 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } 3 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Bring down the first equation. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 2} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $3 x+7 y=-2$

$$
\mathbf{x}=
$$

$5 x+4 y=-11$

$$
\mathbf{y}=
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $3 x+7 y=-2$

$$
\mathbf{x}=
$$

$5 x+4 y=-11$
$y=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $\quad 3 x+7 y=-2$

$$
5 x+4 y=-11
$$

$$
\begin{aligned}
& \mathbf{x}= \\
& \mathbf{y}=
\end{aligned}
$$

Notice that both equations are in 'standard form' $(\mathbf{A x}+\mathbf{B y}=\mathbf{C})$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $3 x+7 y=-2$

$$
\mathbf{x}=
$$

$5 x+4 y=-11$
$y=$ $\qquad$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $\quad 3 x+7 y=-2$

$$
\mathbf{x}=
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $3 x+7 y=-2$

$$
\mathbf{x}=
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms.

$$
5 x+4 y=-11
$$ Multiply both sides of the first equation by 4 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{aligned}
\stackrel{4}{4} 3 x+7 y & =-2 & & x= \\
5 x+4 y & =-11 & & y=
\end{aligned}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. ${ }^{4} 3 x+7 y=-2$
$5 x+4 y=-11$
$y=$ $\qquad$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.

12x

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{aligned}
\stackrel{4}{4} 3 x+7 y & =-2 & & x= \\
5 x+4 y & =-11 & & y=
\end{aligned}
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms. Multiply both sides of the first equation by 4 .
$12 x+28 y$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{aligned}
\stackrel{4}{3} 3 x+7 y & =-2 & & x= \\
5 x+4 y & =-11 & & y=
\end{aligned}
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms. Multiply both sides of the first equation by 4 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{aligned}
\stackrel{4}{4} 3 x+7 y & =-2 & & x= \\
5 x+4 y & =-11 & & y=
\end{aligned}
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by - $\mathbf{- 7}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rlr}
\stackrel{4}{4} 3 x+7 y=-2 & x= \\
\xrightarrow{-7} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.
6. $\stackrel{4}{3} \mathbf{3 x}+7 \mathrm{y}=-2$
$\xrightarrow{-7} 5 x+4 y=-11$

$\mathbf{y}=$ $\qquad$
$12 x+28 y=-8$
$-35 x$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{ll}
\text { 6. } \xrightarrow{4} 3 x+7 y=-2 & x= \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y= \\
12 x+28 y=-8 & \\
-35 x-28 y &
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{4} 3 x+7 y=-2 & x= \\
\xrightarrow{-7} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by $\mathbf{- 7}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \stackrel{4}{-} 3 x+7 y=-2 \quad x=
$$

To solve for $\mathbf{x}$, you must eliminate the $\mathbf{y}$-terms. Multiply both sides of the first equation by 4 .
Multiply both sides of the second equation by $\mathbf{- 7}$.
Now add the equations and solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rlrl}
\stackrel{4}{\rightarrow} 3 x+7 y & =-2 & & x= \\
\xrightarrow{-7} 5 x+4 y=-11 & & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{\rightarrow} 3 x+7 y=-2 & \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rlr}
\stackrel{4}{4} 3 x+7 y & =-2 & x= \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $\mathbf{x}$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4 .
Multiply both sides of the second equation by $\mathbf{- 7}$.
Now add the equations and solve for $\mathbf{x}$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{\rightarrow} 3 x+7 y=-2 & x= \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{array}{rlr}
\text { 6. } \xrightarrow{4} 3 x+7 y=-2 & x= \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{\rightarrow} 3 x+7 y=-2 & x=-3 \\
\stackrel{-7}{\Rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms. Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{\rightarrow} 3 x+7 y=-2 & x=-3 \\
\stackrel{-7}{\rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms.
Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the $x$-terms.

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\text { 6. } \begin{array}{rl}
\stackrel{4}{4} 3 x+7 y=-2 & x=-3 \\
\xrightarrow[-7]{\rightarrow} 5 x+4 y=-11 & y=
\end{array}
$$

To solve for $x$, you must eliminate the $y$-terms.
Multiply both sides of the first equation by 4.
Multiply both sides of the second equation by -7 .
Now add the equations and solve for $x$.
To solve for $y$, you must eliminate the x-terms.
Multiply both sides of the first equation by 5 .

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \stackrel{5}{-3} \\
& \xrightarrow{-7} 5 x+4 y=-11 \\
& \mathbf{y}= \\
& 12 x+28 y=-8 \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \stackrel{5}{-3} \\
& \xrightarrow{-7} 5 x+4 y=-11 \quad y= \\
& 12 x+28 y=-8 \quad 15 x \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 . \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \stackrel{5}{-3} \\
& \xrightarrow{-7} 5 x+4 y=-11 \quad y= \\
& \text { - } \\
& \text { To solve for } x \text {, you must } \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\longrightarrow} 5 x+4 y=-11 \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{rll}
12 x+28 y & =-8 & 15 x+35 y=-10
\end{array} \quad \begin{array}{l}
\text { Multiply both sides of the second } \\
-35 x-28 y=77
\end{array} \quad \begin{array}{ll}
\text { equation by }-7 .
\end{array} \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 .
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\longrightarrow} 5 x+4 y=-11 \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{lll}
12 x+28 y=-8 & 15 x+35 y=-10 & \begin{array}{l}
\text { Multiply both sides of the second } \\
\text { equation by }-7 .
\end{array}
\end{array} \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y=-10 \quad \text { Multiply both sides of the second } \\
& -35 x-28 y=77 \\
& -23 x=69 \\
& x=-3 \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\longrightarrow} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
\frac{-35 x-28 y=77}{-23 x=69} & -15 x \\
x=-3 &
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\rightarrow} 5 x+4 y=-11 \stackrel{-3}{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
\frac{-35 x-28 y=77}{-23 x=69} & -15 x-12 y \\
x=-3 &
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{rl}
12 x+28 y=-8 & 15 x+35 y=-10 \\
-35 x-28 y=77 & -15 x-12 y=33
\end{array} \\
& -23 x=69 \\
& x=-3 \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 . \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
-35 x-28 y=77 & -15 x-12 y=33 \\
\hline-23 x=69 & \\
x=-3 &
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

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Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\longrightarrow} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y=-10 \quad \text { Multiply both sides of the second } \\
& \underline{-35 x-28 y=77} \quad \underline{-15 x-12 y}=33 \\
& -23 x=69 \\
& x=-3 \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

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\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y=-10 \quad \text { Multiply both sides of the second } \\
& \underline{-35 x-28 y=77} \quad \underline{-15 x-12 y=33} \\
& -23 x=69 \\
& x=-3 \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

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Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y=-10 \quad \text { Multiply both sides of the second } \\
& \frac{-35 x-28 y=77}{-23 x=69} \quad \frac{-15 x-12 y=33}{23 y=23} \\
& \text { equation by } \mathbf{- 7} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } \mathbf{x} \text {. } \\
& \text { To solve for y, you must } \\
& \text { eliminate the } \mathbf{x} \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } \mathbf{y} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
\frac{-35 x-28 y=77}{-23 x=69} & \\
\cline { 1 - 3 }=-3 & \\
\hline \mathbf{- 1 5 x}-12 y=33 \\
\hline
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 7} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } \mathbf{y} \text {, you must } \\
& \text { eliminate the } \mathbf{x} \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } \mathbf{y} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \stackrel{4}{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11^{-3} \quad y= \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
\frac{-35 x-28 y=77}{-23 x=69} & \frac{-15 x-12 y=33}{23 y=23} \\
x=-3 & y=1
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 7} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } \mathbf{y} \text {, you must } \\
& \text { eliminate the } \mathrm{x} \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } \mathbf{y} \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& \stackrel{-7}{\square} 5 x+4 y=-11{ }^{-3} \quad y=\underline{1} \\
& \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& \begin{array}{cc}
12 x+28 y=-8 & 15 x+35 y=-10 \\
\frac{-35 x-28 y=77}{-23 x=69} & \\
\cline { 1 - 3 }=-3 & \\
\hline \mathbf{- 1 5 x}-12 y=33 \\
\hline y=1
\end{array} \\
& \text { Multiply both sides of the second } \\
& \text { equation by }-7 \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the } x \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 \text {. } \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. }{ }^{4} 3 \mathrm{x}+7 \mathrm{y}=-2 \underset{\sim}{5} \quad \mathrm{x}=-3 \quad \text { To solve for } \mathrm{x} \text {, you must } \\
& \stackrel{-7}{\longrightarrow} 5 x+4 y=-11 \stackrel{-3}{-3} \quad y= \\
& \text { eliminate the } \mathbf{y} \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 4 . \\
& 12 x+28 y=-8 \quad 15 x+35 y=-10 \quad \text { Multiply both sides of the second } \\
& \begin{array}{cc}
\frac{-35 x-28 y=77}{-23 x=69} & \\
\cline { 2 - 2 }=-3 & \\
\hline \mathbf{- 1 5 x}-12 y=33 \\
\hline y=1
\end{array} \\
& \text { equation by }-7 . \\
& \text { Now add the equations and } \\
& \text { solve for } x \text {. } \\
& \text { To solve for } y \text {, you must } \\
& \text { eliminate the x-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

## Algebra II Class Worksheet \#4 Unit 2

Solve the following systems of equations using the multiplication-addition method.

$$
\begin{aligned}
& \text { 6. } \xrightarrow{4} 3 x+7 y=-2 \quad 5 \quad x=-3 \quad \text { To solve for } x \text {, you must } \\
& -7 \quad-3 x \quad-11^{-3} \quad \text { eliminate the } y \text {-terms. } \\
& \text { Multiply both sides of the first } \\
& { }^{1} \text { Good luck on your homework !! d } \\
& \frac{-35 x-20 y-1 /}{-23 x=69} \quad \frac{-15 x-12 y-55}{23 y=23} \quad \begin{array}{l}
\text { Now add the equations and } \\
\text { solve for } x .
\end{array} \\
& x=-3 \quad y=1 \quad \text { To solve for } y, \text { you must } \\
& \text { eliminate the x-terms. } \\
& \text { Multiply both sides of the first } \\
& \text { equation by } 5 . \\
& \text { Multiply both sides of the second } \\
& \text { equation by } \mathbf{- 3} \text {. } \\
& \text { Now add the equations and } \\
& \text { solve for } y \text {. }
\end{aligned}
$$

