## Algebra I Lesson \#3 Unit 1

 Class Worksheet \#3For Worksheet \#4

## Algebra I Properties of Addition and Subtraction Unit 1

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
3+5=8 \text { and } 5+3=8
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 .
$$

$$
7+2=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 . \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 . \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 . \\
& 6+8=14
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 . \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 . \\
& 6+8=14 \text { and }
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 \\
& 7+2=9 \text { and } 2+7=9 . \\
& 6+8=14 \text { and } 8+6=
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 . \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 . \\
& 6+8=14 \text { and } 8+6=14 . \quad \text { Therefore, }
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 . \\
& 6+8=14 \text { and } 8+6=14 . \quad \text { Therefore, } 6+8=
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3+5=8 \text { and } 5+3=8 . \quad \text { Therefore, } 3+5=5+3 \\
& 7+2=9 \text { and } 2+7=9 . \quad \text { Therefore, } 7+2=2+7 . \\
& 6+8=14 \text { and } 8+6=14 . \quad \text { Therefore, } 6+8=8+6 .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.

In general,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.

In general, $\mathbf{x}+\mathbf{y}=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.
In general, $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9 . \quad$ Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.

In general, $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$.
This property is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.

In general, $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$.
This property is called the Commutative Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$3+5=8$ and $5+3=8$. Therefore, $3+5=5+3$.
$7+2=9$ and $2+7=9$. Therefore, $7+2=2+7$.
$6+8=14$ and $8+6=14$. Therefore, $6+8=8+6$.

In general, $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$.
This property is called the Commutative Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
(3+4)+5=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
(3+4)+5=7+5=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
(3+4)+5=7+5=12
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and }
\end{gathered}
$$

$$
3+(4+5)=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and }
\end{gathered}
$$

$$
3+(4+5)=3+9=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\left.\begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array}\right\} \text { Therefore, }
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\left.\begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array}\right\} \text { Therefore, }(3+4)+5
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\left.\begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array}\right\} \text { Therefore, }(3+4)+5=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\left.\begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array}\right\} \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& (5+2)+3=
\end{aligned} \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& (5+2)+3=7+3=
\end{aligned} \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& (5+2)+3=7+3=10
\end{aligned} \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{l}
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)
\end{array} \text { Therefore, }(3+4)+5=3+(4+5) .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{l}
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=
\end{array} \text { Therefore, }(3+4)+5=3+(4+5) .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{l}
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5
\end{array} \text { Therefore, }(3+4)+5=3+(4+5) .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{c}
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{array} \text { Therefore, }(3+4)+5=3+(4+5) .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& 3+(4+5)=3+9=12 \\
& \text { and } \\
& (5+2)+3=7+3=10 \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=7+2
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=7+2=9
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{c}
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{array} \\
& \begin{array}{c}
(4+3)+2=7+2=9 \\
\text { and }
\end{array}
\end{aligned} \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=7+2=9 \\
& \quad \text { and } \\
& 4+(3+2)
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=7+2=9 \\
& \text { and } \\
& 4+(3+2)=
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3+4)+5=7+5=12 \\
& \text { and } \\
& 3+(4+5)=3+9=12 \\
& (5+2)+3=7+3=10 \\
& \text { and } \\
& 5+(2+3)=5+5=10 \\
& (4+3)+2=7+2=9 \\
& \text { and } \\
& 4+(3+2)=4+5
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{c} 
\\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array} \quad \text { Therefore, }(3+4)+5=3+(4+5) . \\
& \\
& 4
\end{aligned} \quad \text { Therefore, }(5+2)+3=5+(2+3) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \begin{array}{c} 
\\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array}
\end{aligned} \quad \text { Therefore, }(3+4)+5=3+(4+5) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
\begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
\begin{array}{c} 
\\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array}>\text { Therefore, }(3+4)+5=3+(4+5) . \\
\end{gathered} \quad \text { Therefore, }(5+2)+3=5+(2+3) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
\begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
\begin{array}{c} 
\\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10
\end{array} \\
\begin{array}{c}
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array} \quad \text { Therefore, }(3+4)+5=3+(4+5) .
\end{gathered} \quad \text { Therefore, }(5+2)+3=5+(2+3) .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
\begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
5 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array}>\text { Therefore, }(3+4)+5=3+(4+5) . \\
\end{gathered} \quad \text { Therefore, }(5+2)+3=5+(2+3) .
$$

In general,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

In general, $(x+y)+z$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12
\end{array} \\
& \left.\begin{array}{c} 
\\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{array}\right\rangle \text { Therefore, }(3+4)+5=3+(4+5) . \\
&
\end{aligned} \quad \text { Therefore, }(5+2)+3=5+(2+3) .
$$

In general, $(x+y)+z=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

$$
\text { In general, }(x+y)+z=x+(y+z)
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

In general, $(x+y)+z=x+(y+z)$.
This property is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

In general, $(x+y)+z=x+(y+z)$.
This property is called the Associative Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
(3+4)+5=7+5=12 \\
\text { and } \\
3+(4+5)=3+9=12 \\
(5+2)+3=7+3=10 \\
\text { and } \\
5+(2+3)=5+5=10 \\
(4+3)+2=7+2=9 \\
\text { and } \\
4+(3+2)=4+5=9
\end{gathered}
$$

$$
\text { In general, }(x+y)+z=x+(y+z)
$$

This property is called the Associative Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$5+0=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

$$
\text { In general, } x+0
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $\mathbf{x}+0=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $\mathbf{x}+\mathbf{0}=\mathbf{x}$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $x+0=x$ and

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

$$
\text { In general, } x+0=x \text { and } 0+x
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $x+0=x$ and $0+x=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

$$
\text { In general, } x+0=x \text { and } 0+x=x .
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

$$
\text { In general, } x+0=x \text { and } 0+x=x .
$$

This is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $\mathbf{x}+\mathbf{0}=\mathbf{x}$ and $\mathbf{0}+\mathbf{x}=\mathbf{x}$.

This is called the Identity Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
5+0=5 \quad 8+0=8 \quad 0+7=7 \quad 0+2=2
$$

In general, $\mathbf{x}+\mathbf{0}=\mathbf{x}$ and $0+\mathbf{x}=\mathbf{x}$.

This is called the Identity Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.
$2+-2=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=0
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=0
$$

In general,

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=0
$$

$$
\text { In general, } x+-x
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=0
$$

$$
\text { In general, } x+-x=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \quad-7+7=0 \quad-8+8=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.
$-x$ is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \quad-7+7=0 \quad-8+8=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.
$-x$ is called the opposite of $x$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \quad-7+7=0 \quad-8+8=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.
-x is called the opposite of $x$ or

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
2+-2=0 \quad 5+-5=0 \quad-7+7=0 \quad-8+8=0 \\
\text { In general, } x+-x=0 .
\end{gathered}
$$

This is called the Inverse Law of Addition.
$-x$ is called the opposite of $x$ or the additive inverse of $x$.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
8-3=
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
8-3=5
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
8-3=5
$$

and

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5
\end{gathered}
$$

Therefore, 8 - 3

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5
\end{gathered} \quad>\text { Therefore, } 8-3=8+-3
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
\\
4-7=-3
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
\\
4-7=-3 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=-3 \\
\text { and } \\
4+-7=
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=-3 \\
\text { and } \\
4+-7=-3
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{array}{cc}
\begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} & \text { Therefore, } 8-3=8+-3 . \\
\\
\begin{array}{c}
7-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} & \text { Therefore, } 4-7=4+-7 .
\end{array}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=-3 \\
\text { and } \\
4+-7=-3 \\
-3-5=
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=-3 \\
\text { and } \\
4+-7=-3 \\
-3-5=-8
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
4-7=-3 \\
\text { and } \\
4+-7=-3 \\
-3-5=-8 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
\\
4-7=-3 \\
\text { and } \\
4+-7=-3 \\
-3-5=-8 \\
\text { and } \\
-3+-5=
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{gathered}
8-3=5 \\
\text { and } \\
8+-3=5 \\
\\
4-7=-3 \\
\text { and } \\
4+-7=-3 \\
\\
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{gathered}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{array}{cl}
\begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
\\
4-7=-3 \\
\begin{array}{c}
\text { and } \\
4+-7=-3
\end{array} & \text { Therefore, } 8-3=8+-3 . \\
\begin{array}{l} 
\\
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} & \text { Therefore, } 4-7=4+-7 .
\end{array}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{array}{cl}
\begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
\\
4-7=-3 \\
\begin{array}{c}
\text { and } \\
4+-7=-3
\end{array} & \text { Therefore, } 8-3=8+-3 . \\
\begin{array}{c} 
\\
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} & \text { Therefore, } 4-7=4+-7 .
\end{array}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
& \begin{array}{l}
\text { } \\
-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} \\
& \begin{array}{l}
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} \\
& \quad \text { Therefore, } 8-3=8+-3 . \\
& \quad \text { Th general, }
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
& \begin{array}{c}
\text { Therefore, } 8-3=8+-3 . \\
4-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} \\
& \begin{array}{c}
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} \\
& \quad \text { Therefore, } 4-7=4+-7 .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.


In general, $\mathbf{x}-\mathbf{y}=$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
& \begin{array}{c}
\text { Therefore, } 8-3=8+-3 . \\
4-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} \\
& \begin{array}{c}
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} \\
& \quad \text { Therefore, } 4-7=4+-7 .
\end{aligned}
$$

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
& \begin{array}{c}
\text { Therefore, } 8-3=8+-3 . \\
4-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} \\
& \begin{array}{c}
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} \\
& \quad \text { Therefore, } 4-7=4+-7 .
\end{aligned}
$$

This property is called

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& 8-3=5 \\
& \text { and } \\
& 8+-3=5 \\
& 4-7=-3 \\
& \text { and } \\
& 4+-7=-3 \\
& -3-5=-8 \\
& \text { and } \\
& -3+-5=-8 \\
& \text { Therefore, } 8-3=8+\mathbf{- 3} \text {. } \\
& \text { Therefore, } 4-7=4+-7 \text {. } \\
& \text { In general, } \mathbf{x}-\mathbf{y}=\mathbf{x}+\mathbf{- y} \text {. }
\end{aligned}
$$

This property is called the Definition of Subtraction.

## Algebra I Properties of Addition and Subtraction Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8-3=5 \\
\text { and } \\
8+-3=5
\end{array} \\
& \begin{array}{c}
\text { Therefore, } 8-3=8+-3 . \\
4-7=-3 \\
\text { and } \\
4+-7=-3
\end{array} \\
& \begin{array}{l}
-3-5=-8 \\
\text { and } \\
-3+-5=-8
\end{array} \\
& \quad \text { Therefore, } 4-7=4+-7 .
\end{aligned}
$$

This property is called the Definition of Subtraction.

## Algebra I Properties of Multiplication and Division Unit 1

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
3 \cdot 5=15 \text { and }
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
3 \cdot 5=15 \text { and } 5 \cdot 3=15
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore,

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3 \cdot 5=15 \text { and } 5 \cdot 3=15 . \quad \text { Therefore, } 3 \cdot 5=5 \cdot 3 . \\
& 7 \cdot 2=14 \text { and } 2 \cdot 7=14 .
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14 . \quad$ Therefore,

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 3 \cdot 5=15 \text { and } 5 \cdot 3=15 . \quad \text { Therefore, } 3 \cdot 5=5 \cdot 3 \\
& 7 \cdot 2=14 \text { and } 2 \cdot 7=14 . \quad \text { Therefore, } 7 \cdot 2=2 \cdot 7 .
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15 . \quad$ Therefore, $3 \cdot 5=5 \cdot 3$
$7 \cdot 2=14$ and $2 \cdot 7=14 . \quad$ Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore,

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.
In general,

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.
In general, $\mathbf{x} \cdot \mathbf{y}=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.
In general, $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.
In general, $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$.
This property is called the

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$3 \cdot 5=15$ and $5 \cdot 3=15$. Therefore, $3 \cdot 5=5 \cdot 3$.
$7 \cdot 2=14$ and $2 \cdot 7=14$. Therefore, $7 \cdot 2=2 \cdot 7$.
$6 \cdot 8=48$ and $8 \cdot 6=48$. Therefore, $6 \cdot 8=8 \cdot 6$.
In general, $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$.
This property is called the Commutative Law of Multiplication.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=12 \cdot 5$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
(3 \cdot 4) \cdot 5=12 \cdot 5=60
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and }
\end{gathered}
$$

$$
3 \cdot(4 \cdot 5)=3 \cdot 20
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=12 \cdot 5=60$
and
Therefore,
$3 \cdot(4 \cdot 5)=3 \cdot 20=60$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=12 \cdot 5=60$
and
Therefore, $(3 \cdot 4) \cdot 5=$
$3 \cdot(4 \cdot 5)=3 \cdot 20=60$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=12 \cdot 5=60$
and
Therefore, $(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5)$.
$3 \cdot(4 \cdot 5)=3 \cdot 20=60$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$(3 \cdot 4) \cdot 5=12 \cdot 5=60$
and
$3 \cdot(4 \cdot 5)=3 \cdot 20=60$
$(5 \cdot 2) \cdot 3=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60
\end{array} \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30
\end{aligned} \text { Therefore, }(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5) .
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
\begin{array}{c}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60
\end{array} \\
\left.\begin{array}{c}
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30
\end{array}\right\rangle \text { Therefore, }(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5) .
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
(4 \cdot 3) \cdot 2=12 \cdot 2=24
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
(4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
\text { and }
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
(3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
\text { and } \\
3 \cdot(4 \cdot 5)=3 \cdot 20=60
\end{array} \\
& \begin{array}{l}
(5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
\text { and } \\
5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
(4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
\text { and } \\
4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{array} \quad \text { Therefore, }(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5) . \\
&
\end{aligned} \quad \text { Therefore, }(5 \cdot 2) \cdot 3=5 \cdot(2 \cdot 3) .
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

Therefore, $(5 \cdot 2) \cdot 3=5 \cdot(2 \cdot 3)$.

Therefore, $(4 \cdot 3) \cdot 2=4 \cdot(3 \cdot 2)$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

Therefore, $(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5)$.

Therefore, $(5 \cdot 2) \cdot 3=5 \cdot(2 \cdot 3)$.

Therefore, $(4 \cdot 3) \cdot 2=4 \cdot(3 \cdot 2)$.

In general,

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

Therefore, $(3 \cdot 4) \cdot 5=3 \cdot(4 \cdot 5)$.

Therefore, $(5 \cdot 2) \cdot 3=5 \cdot(2 \cdot 3)$.

Therefore, $(4 \cdot 3) \cdot 2=4 \cdot(3 \cdot 2)$.

In general, $(x \cdot y) \cdot z=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

In general, $(x \cdot y) \cdot z=x \cdot(y \cdot z)$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

In general, $(x \cdot y) \cdot z=x \cdot(y \cdot z)$.
This property is called the

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& (3 \cdot 4) \cdot 5=12 \cdot 5=60 \\
& \text { and } \\
& 3 \cdot(4 \cdot 5)=3 \cdot 20=60 \\
& (5 \cdot 2) \cdot 3=10 \cdot 3=30 \\
& \text { and } \\
& 5 \cdot(2 \cdot 3)=5 \cdot 6=30 \\
& (4 \cdot 3) \cdot 2=12 \cdot 2=24 \\
& \text { and } \\
& 4 \cdot(3 \cdot 2)=4 \cdot 6=24
\end{aligned}
$$

$$
\text { In general, }(x \cdot y) \cdot z=x \cdot(y \cdot z)
$$

This property is called the Associative Law of Multiplication.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot \mathbf{1}=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot \mathbf{1}=5
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot 1=5 \quad 8 \cdot 1=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot 1=5 \quad 8 \cdot 1=8
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
5 \cdot \mathbf{1}=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
& \text { In general, }
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
& \text { In general, } x \cdot 1=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
& \text { In general, } x \cdot 1=x
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
& \text { In general, } x \cdot 1=x \text { and }
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
\text { In general, } x \cdot 1=x \text { and } 1 x=
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
\text { In general, } x \cdot 1=x \text { and } 1 x=x .
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
\text { In general, } x \cdot 1=x \text { and } 1 x=x .
\end{gathered}
$$

This is called the

## Algebra I Properties of Multiplication and Division Unit 1

 Consider the following examples.$$
\begin{gathered}
5 \cdot 1=5 \quad 8 \cdot 1=8 \quad 1 \cdot 7=7 \quad 1 \cdot 2=2 \\
\text { In general, } x \cdot 1=x \text { and } 1 x=x .
\end{gathered}
$$

This is called the Identity Law of Multiplication.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$2 \cdot 1 / 2=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.
$2 \cdot 1 / 2=1$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1 \quad 7 \cdot 1 / 7=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1 \quad 7 \cdot 1 / 7=1
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1 \quad 7 \cdot 1 / 7=1 \quad 8 \cdot 1 / 8=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1 \quad 7 \cdot 1 / 7=1 \quad 8 \cdot 1 / 8=1
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1 \\
& \text { In general, }
\end{array}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

In general, $x \cdot 1 / x=$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 2 \cdot 1 / 2=1 \quad 5 \cdot 1 / 5=1 \quad 7 \cdot 1 / 7=1 \quad 8 \cdot 1 / 8=1 \\
& \\
& \text { In general, } x \cdot 1 / x=1 .
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the Inverse Law of Multiplication.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the Inverse Law of Multiplication.
$1 / x$ is called the

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the Inverse Law of Multiplication.
$1 / x$ is called the reciprocal of $x$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the Inverse Law of Multiplication.
$1 / x$ is called the reciprocal of $x$ or

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{array}{llll}
2 \cdot 1 / 2=1 & 5 \cdot 1 / 5=1 & 7 \cdot 1 / 7=1 & 8 \cdot 1 / 8=1
\end{array}
$$

$$
\text { In general, } x \cdot 1 / x=1 .(x \text { can not be } 0 .)
$$

This is called the Inverse Law of Multiplication.
$1 / \mathbf{x}$ is called the reciprocal of $x$ or the multiplicative inverse of $x$.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
8 \div 3=
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
8 \div 3=8 / 3
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div \underset{\text { and }}{3}=8 / 3 \\
\hline
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 8 \div 3=8 / 3 \\
& \text { and } \\
& 8 \cdot(1 / 3)=8 / 3 \\
& 4 \div 7=
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
4 \div 7=4 / 7
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
4 \div 7=4 / 7 \\
\begin{array}{c}
\text { and }
\end{array}
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
\\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
\\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \\
& 4 \div 7=4 / 7 \\
& \begin{array}{c}
\text { and } \\
4 \cdot(1 / 7)=4 / 7
\end{array} \\
& \\
& 3 \div 5=
\end{aligned} \quad \text { Therefore, } 8 \div 3=8 \cdot 1 / 3
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \begin{array}{l}
\text { (1/3 } \\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7
\end{array} \\
& \begin{array}{l}
\text { Therefore, } 8 \div 3=8 \cdot 1 / 3 \\
3 \div 5=3 / 5
\end{array} \quad \text { Therefore, } 4 \div 7=4 \cdot 1 / 7 .
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 8 \div 3=8 / 3 \\
& 8 \cdot(1 / 3)=8 / 3 \\
& 4 \div 7=4 / 7 \\
& \text { and } \\
& 4 \cdot(1 / 7)=4 / 7 \\
& 3 \div 5=3 / 5 \\
& \text { and }
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
\\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7 \\
\\
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
\\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7 \\
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.


## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{gathered}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3 \\
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7 \\
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5 \\
\text { In general, } x \div y=
\end{gathered}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& 8 \div 3=8 / 3 \\
& \text { and } \\
& 8 \cdot(1 / 3)=8 / 3 \\
& 4 \div 7=4 / 7 \\
& \text { and } \\
& 4 \cdot(1 / 7)=4 / 7 \\
& 3 \div 5=3 / 5 \\
& \text { and } \\
& 3 \cdot(1 / 5)=3 / 5 \\
& \text { In general, } x \div y=x \cdot
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \begin{array}{l}
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7
\end{array} \\
& \begin{array}{l}
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5
\end{array} \\
& \text { Ther } \\
& \text { In general, } x \div y=x \cdot 1 / y .
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \begin{array}{l}
\text { Therefore, } 8 \div 3=8 \cdot 1 / 3 . \\
4 \cdot 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7 \\
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5
\end{array} \quad \text { Therefore, } 4 \div 7=4 \cdot 1 / 7 . \\
& \text { In general, } x \div y=x \cdot 1 / y \cdot(y \text { can not be } 0 .)
\end{aligned}
$$

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{c}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \begin{array}{l}
4 \div 7=4 / 7 \\
\text { and } \\
4 \cdot(1 / 7)=4 / 7
\end{array} \\
& \begin{array}{l}
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5
\end{array} \quad \text { Therefore, } 8 \div 3=8 \cdot \\
& \text { In general, } x \div y=x \cdot 1 / y \cdot(y \text { can not be } 0 .)
\end{aligned}
$$

This property is called the

## Algebra I Properties of Multiplication and Division Unit 1

Consider the following examples.

$$
\begin{aligned}
& \begin{array}{l}
8 \div 3=8 / 3 \\
\text { and } \\
8 \cdot(1 / 3)=8 / 3
\end{array} \\
& \begin{array}{l}
\text { Therefore, } 8 \div 3=8 \cdot 1 / 3 . \\
\begin{array}{l}
7=4 / 7 \\
\text { and } \\
(1 / 7)=4 / 7
\end{array} \\
\begin{array}{l}
3 \div 5=3 / 5 \\
\text { and } \\
3 \cdot(1 / 5)=3 / 5
\end{array} \\
\text { In general, } x \div y=x \cdot 1 / y . \text { Therefore, } 4 \div 7=4 \cdot 1 / 7 . \\
\text { This property is called the Definition of Division. }
\end{array} \text { Therefore, } 3 \div 5=3 \cdot 1 / 5 .
\end{aligned}
$$

## Algebra I Property Review Unit 1

## Algebra I Property Review Unit 1

Commutative Law of Addition:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(x \cdot y) \cdot z=x \cdot(y \cdot z)$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(\mathbf{x} \cdot \mathbf{y}) \cdot \mathbf{z}=\mathbf{x} \cdot(\mathbf{y} \cdot \mathbf{z})$
Identity Law of Addition:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(\mathbf{x} \cdot \mathbf{y}) \cdot \mathbf{z}=\mathbf{x} \cdot(\mathbf{y} \cdot \mathbf{z})$
Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $\mathbf{x}+\mathbf{y}=\mathbf{y}+\mathbf{x}$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(x \cdot y) \cdot z=x \cdot(y \cdot z)$
Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(\mathbf{x} \cdot \mathbf{y}) \cdot \mathbf{z}=\mathbf{x} \cdot(\mathbf{y} \cdot \mathbf{z})$
Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$ Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

```
Associative Law of Addition: (x+y)+z=x+(y+z)
Associative Law of Multiplication: (x y)}\mathbf{y}=\mathbf{z}=\mathbf{x}\cdot(\mathbf{y}\cdot\textrm{z}
```

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$ Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

```
Associative Law of Addition: (x+y)+z=x+(y+z)
Associative Law of Multiplication: (x y)}\mathbf{y}=\mathbf{z}=\mathbf{x}\cdot(\mathbf{y}\cdot\textrm{z}
```

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $\mathbf{x}+\mathbf{x}=\mathbf{0}$

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$
Associative Law of Addition: $(x+y)+z=x+(y+z)$
Associative Law of Multiplication: $(x \cdot y) \cdot z=x \cdot(y \cdot z)$
Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $\mathbf{x}+\mathbf{x}=\mathbf{0}$
Inverse Law of Multiplication:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$ Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

```
Associative Law of Addition: (x+y)+z=x+(y+z)
Associative Law of Multiplication: (x}\cdot\mathbf{y})\cdot\mathbf{z}=\mathbf{x}\cdot(\mathbf{y}\cdot\mathbf{z}
```

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $\mathbf{x + - x}=\mathbf{0}$
Inverse Law of Multiplication: If $\mathbf{x} \neq \mathbf{0}$, then $\mathbf{x} \cdot \mathbf{1 / x}=\mathbf{1}$.

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$ Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

$$
\begin{aligned}
& \text { Associative Law of Addition: }(x+y)+z=x+(y+z) \\
& \text { Associative Law of Multiplication: }(x \cdot y) \cdot z=x \cdot(y \cdot z)
\end{aligned}
$$

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $x+-x=0$
Inverse Law of Multiplication: If $x \neq 0$, then $x \cdot 1 / x=1$.
Definition of Subtraction:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

$$
\begin{aligned}
& \text { Associative Law of Addition: }(x+y)+z=x+(y+z) \\
& \text { Associative Law of Multiplication: }(x \cdot y) \cdot z=x \cdot(y \cdot z)
\end{aligned}
$$

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $\mathbf{x}+\mathbf{x}=\mathbf{0}$
Inverse Law of Multiplication: If $x \neq 0$, then $x \cdot 1 / x=1$.
Definition of Subtraction: $x i ̈ y=x+-y$.

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$ Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

```
Associative Law of Addition: (x+y)+z=x+(y+z)
Associative Law of Multiplication: (x}\cdot\mathbf{y})\cdot\mathbf{z}=\mathbf{x}\cdot(\mathbf{y}\cdot\mathbf{z}
```

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$

Inverse Law of Addition: $\mathbf{x}+\mathbf{x}=\mathbf{0}$
Inverse Law of Multiplication: If $\mathbf{x} \neq \mathbf{0}$, then $\mathbf{x} \cdot \mathbf{1 / x}=\mathbf{1}$.
Definition of Subtraction: $x i ̈ y=x+-y$.
Definition of Division:

## Algebra I Property Review Unit 1

Commutative Law of Addition: $x+y=y+x$
Commutative Law of Multiplication: $\mathbf{x} \cdot \mathbf{y}=\mathbf{y} \cdot \mathbf{x}$

```
Associative Law of Addition: (x+y)+z=x+(y+z)
Associative Law of Multiplication: (x}\cdot\mathbf{y})\cdot\mathbf{z}=\mathbf{x}\cdot(\mathbf{y}\cdot\mathbf{z}
```

Identity Law of Addition: $\mathbf{x}+\mathbf{0}=\mathbf{x}$
Identity Law of Multiplication: $1 x=x$
Inverse Law of Addition: $\mathbf{x}+\mathbf{x}=\mathbf{0}$
Inverse Law of Multiplication: If $\mathbf{x} \neq \mathbf{0}$, then $\mathbf{x} \cdot \mathbf{1 / x}=\mathbf{1}$.
Definition of Subtraction: $x i ̈ y=x+-y$.
Definition of Division: If $y \neq 0$, then $x \div y=x \cdot 1 / y$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.


## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.


## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
$\qquad$ 3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$

The Identity Law of Multiplication
2. $1 x=x$
3. $x+-x=0$
$\qquad$ 4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$

The Identity Law of Multiplication
2. $1 x=x$

The Inverse Law of Addition
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $x+0=x$

The Identity Law of Multiplication
2. $1 x=x$

The Inverse Law of Addition
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
$\qquad$ 5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$

The Identity Law of Multiplication
2. $1 x=x$

The Inverse Law of Addition
3. $x+-x=0$

The Inverse Law of Multiplication
4. If $x \neq 0$, then $x(1 / x)=1$.

The Commutative Law of Addition
5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $x+0=x$

The Identity Law of Multiplication
2. $1 x=x$

The Inverse Law of Addition
3. $x+-x=0$

The Inverse Law of Multiplication
The Commutative Law of Addition 4. If $x \neq 0$, then $x(1 / x)=1$. 5. $x+y=y+x$
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.
The Identity Law of Addition

1. $\mathrm{x}+0=\mathrm{x}$

The Identity Law of Multiplication
2. $1 x=x$

The Inverse Law of Addition
3. $x+-x=0$

The Inverse Law of Multiplication
4. If $x \neq 0$, then $x(1 / x)=1$.

The Commutative Law of Addition
5. $x+y=y+x$

The Commutative Law of Multiplication
6. $x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Commutive Law of Multiplication
$\square$
$\qquad$ 8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
$\qquad$
$\qquad$ 9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
$\qquad$ 7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $\quad x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $\quad x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition

## The Identity Law of Multiplication

The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication
The Definition of Subtraction
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication
The Definition of Subtraction
The Definition of Subtraction
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication
The Definition of Subtraction
The Definition of Division

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $\quad x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Write the full name of each property.

The Identity Law of Addition
The Identity Law of Multiplication
The Inverse Law of Addition
The Inverse Law of Multiplication
The Commutative Law of Addition
The Commutative Law of Multiplication
The Associative Law of Addition
The Associative Law of Multiplication
The Definition of Subtraction
The Definition of Division

1. $\mathrm{x}+0=\mathrm{x}$
2. $1 x=x$
3. $x+-x=0$
4. If $x \neq 0$, then $x(1 / x)=1$.
5. $x+y=y+x$
6. $\quad x y=y x$
7. $(x+y)+z=x+(y+z)$
8. $(x y) z=x(y z)$
9. $x-y=x+-y$
10. If $y \neq 0$, then $x \div y=x(1 / y)$.

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=$ $\qquad$
13. $(73+89)+27=$ $\qquad$
12. $15 \cdot(705 \div 15)=$ $\qquad$
14. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=$ $\qquad$
13. $(73+89)+27=$ $\qquad$
12. $15 \cdot(705 \div 15)=$ $\qquad$
14. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=$ $\qquad$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=$ $\qquad$
15. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(\mathbf{3 5}-78)=\mathbf{3 5}$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=$ $\qquad$
15. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=$ $\qquad$
15. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=$ $\left(15 \cdot \frac{1}{15}\right) \cdot 705$
15. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=\underline{705}$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
15. $(25 \cdot 63) \cdot 4=$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $(73+89)+27=$ $\qquad$
14. $15 \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
15. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $(73+89)+27=$

$$
89+(73+27)
$$

12. $15 \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
13. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(\mathbf{3 5}-78)=35$

$$
(78+-78)+35
$$

13. $\mathbf{( 7 3}+\mathbf{8 9})+\mathbf{2 7}=\mathbf{1 8 9}$

$$
89+(73+27)
$$

12. $\mathbf{1 5} \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
13. $(25 \cdot 63) \cdot 4=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(\mathbf{3 5}-78)=35$

$$
(78+-78)+35
$$

13. $\mathbf{( 7 3}+\mathbf{8 9})+\mathbf{2 7}=\mathbf{1 8 9}$
$89+(73+27)$
14. $15 \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
15. $(25 \cdot 63) \cdot 4=$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $\mathbf{( 7 3}+\mathbf{8 9})+\mathbf{2 7}=\mathbf{1 8 9}$

$$
89+(73+27)
$$

12. $\mathbf{1 5} \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
13. $(25 \cdot 63) \cdot 4=$
$63 \cdot(25 \cdot 4)$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $\mathbf{( 7 3}+\mathbf{8 9})+\mathbf{2 7}=\mathbf{1 8 9}$

$$
89+(73+27)
$$

12. $\mathbf{1 5} \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
13. $(25 \cdot 63) \cdot 4=\underline{6300}$
$63 \cdot(25 \cdot 4)$

## Algebra I Class Worksheet \#3 Unit 1

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)
11. $78+(35-78)=35$

$$
(78+-78)+35
$$

13. $\mathbf{( 7 3}+\mathbf{8 9})+\mathbf{2 7}=\mathbf{1 8 9}$

$$
89+(73+27)
$$

12. $15 \cdot(705 \div 15)=705$
$\left(15 \cdot \frac{1}{15}\right) \cdot 705$
13. $(25 \cdot 63) \cdot 4=\underline{6300}$
$63 \cdot(25 \cdot 4)$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=$ $\qquad$ 16. $(8 x)(5 y)=$ $\qquad$
17. $(9 d+7)+(5 d-7)=$ $\qquad$ 18. $24 p \div 8=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$ 20. $(1 / 4)(8 x)=$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=$ $\qquad$
17. $(9 d+7)+(5 d-7)=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=$ $\qquad$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=$ $\qquad$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=$ $\qquad$
18. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
19. $(8 x)(5 y)=$ $\qquad$
20. $24 p \div 8=$ $\qquad$
21. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=$ $\qquad$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=$ $(8 \cdot 5) \cdot(x \cdot y)$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $\qquad$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=$ $\qquad$
18. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
19. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
20. $24 p \div 8=$ $\qquad$
21. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $(9 d+5 d)+(7+-7)$
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
16. $(8 x)(5 y)=\underline{40 x y}$ $(8 \cdot 5) \cdot(x \cdot y)$
18. $24 p \div 8=$ $\qquad$
20. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=$ $\qquad$
22. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=$ $\qquad$
22. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=$ $\qquad$ (24 $\cdot \frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=3 p$ (24 $\cdot \frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=$ $\qquad$ (24 $\cdot \frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$

$$
(6 x+-6 x)+(5 y+5 y)
$$

16. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
17. $24 p \div 8=$ $\qquad$ (24- $\frac{1}{8}$ ) $p$
18. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=$ $\qquad$ $(9 d+5 d)+(7+-7)$
19. $(6 x+5 y)+(5 y-6 x)=10 y$

$$
(6 x+-6 x)+(5 y+5 y)
$$

16. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
17. $24 p \div 8=$ $\qquad$ (24- $\frac{1}{8}$ ) $p$
18. $(1 / 4)(8 x)=$ $\qquad$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$

$$
(4 x+8 x)+(-6 y+9 y)
$$

17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$ 10 y $(6 x+-6 x)+(5 y+5 y)$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=3 p$ (24- $\frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$ $(6 x+-6 x)+(5 y+5 y)$
20. $(8 x)(5 y)=40 x y$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=$ $\qquad$ (24 $\cdot \frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=$

$$
\left(\frac{1}{4} \cdot 8\right) \cdot x
$$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$ $(6 x+-6 x)+(5 y+5 y)$
20. $(8 x)(5 y)=\underline{40 x y}$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=3 p$ (24- $\frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=2 x$
$\left(\frac{1}{4} \cdot 8\right) \cdot x$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
17. $(9 d+7)+(5 d-7)=14 d$

$$
(9 d+5 d)+(7+-7)
$$

19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$ $(6 x+-6 x)+(5 y+5 y)$
20. $(8 x)(5 y)=\underline{40 x y}$ $(8 \cdot 5) \cdot(x \cdot y)$
21. $24 p \div 8=3 p$ (24- $\frac{1}{8}$ ) $p$
22. $(1 / 4)(8 x)=2 x$ $\left(\frac{1}{4} \cdot 8\right) \cdot x$

## Algebra I Class Worksheet \#3 Unit 1

Use the basic properties of addition or multiplication to simplify each of the following expressions.
15. $(4 x-6 y)+(8 x+9 y)=12 x+3 y$ $(4 x+8 x)+(-6 y+9 y)$
16. $(8 x)(5 y)=\underline{40 x y}$ $(8 \cdot 5) \cdot(x \cdot y)$
17. $(9 d+7)+(5 d-7)=14 d$ 18. $24 p \div 8=3 p$ Good luck on your homework !!
19. $(6 x+5 y)+(5 y-6 x)=$ $\qquad$
0y
20. $(1 / 4)(8 x)=$ $\qquad$ $\left(\frac{1}{4} \cdot 8\right) \cdot x$

