## Algebra I <br> 2-1 <br> Basic Properties

Label the correct property illustrated by each.

$$
\begin{array}{ll}
\text { *1) } 7+21=21+7 & \text { *2) } \begin{array}{l}
(6 \cdot 8) 12=12(6 \cdot 8) \\
\text { Commutative } \\
\text { prop. t }
\end{array} \quad \begin{array}{l}
\text { Commutative prop } \\
\begin{array}{l}
\text { This is a trick problem, because of the } \\
\text { parentheses. For it to be associative, the } \\
\text { parentheses must change what numbers they } \\
\text { enclose. Notice, they stay around the } 6 \text { and } 8 . \\
\text { It is the } 12 \text { that moves. }
\end{array}
\end{array} .
\end{array}
$$

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Commutative Property: Stems from commute - tomove
    ofAddition- 7+6 = 6+7
    of Multiplication- 7(6)=6(7)
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Associative Property: stems From Associate - to group

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Associative Property: stems From Associate - to group
of Addition -
of Addition -
stems From Associate - to group
stems From Associate - to group
9+(2+1)=(9+2)+1
9+(2+1)=(9+2)+1
of Multiplication - }9(2\cdot1)=(9\cdot2)\cdot

```
    of Multiplication - }9(2\cdot1)=(9\cdot2)\cdot
```

of Addition -

$$
9+(2+1)=(9+2)+1
$$

of Multiplication - $9(2 \cdot 1)=(9 \cdot 2) \cdot 1$

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Simplify. (pg 47)

1) $\underline{\underline{275}}+\underline{52}+\underline{\underline{5}}+\underline{8}$
2) $6 \frac{1}{2}+4 \frac{1}{3}+1 \frac{1 \frac{1}{2}}{=}+\frac{2}{3}$
$300+60$ 360

$$
8+5
$$

13

We use the commutative property to add together the numbers easiest for doing mental math.

$$
\begin{array}{ll}
\text { 17) }(7 \mathrm{y})(5 \mathrm{z}) & \text { 21) } \mathrm{a}+\underline{\underline{3}}+\mathrm{b}+\underline{4} \\
35 \mathrm{yz} & 7+\mathbf{a}+\boldsymbol{b} \\
& \text { The } a \text { and } b \text { don't match, } \\
\text { so we cannot add them. }
\end{array}
$$

Rule -
When adding - only add like terms $\quad 3 x+2 x=5 x$ When multiplying - mult iply anything


