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## Properties of Real Numbers Guided Notes

1. Name sets of numbers to which each number belongs:
a. $\frac{1}{2}$
b. $\sqrt{7}$
c. $\pi$
d. -5
2. Explain the associative property of addition. Write an example to demonstrate it.
3. What is meant by Multiplicative Identity Property?
4. Can we apply associative property on division?

## PROBLEM 1:

Take each example, and first decide if the left and right sides of the equal signs are equivalent. That would mean the equal sign makes the statement true. Then, decide if the commutative property was used in the example.

| Example | Are the sides equivalent? | Does it use the <br> Commutative Property? |
| :---: | :---: | :---: | :---: |
| $2+4=4+2$ |  |  |
| $2 \times 5=5 \times 2$ |  |  |
| $4-2=2-4$ |  |  |
| $2 \div 6=6 \div 2$ |  |  |
| $2 \times 1 / 4=1 / 4 \times 2$ |  |  |

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## PROBLEM 2:

Take each example and first decide if the left and right sides of the equal signs are equivalent. That would mean the equals sign makes the statement true. Then, decide if the associative property was used in the example.

| Example | Are the sides <br> equivalent? | Does it use the <br> associative Property? |
| :--- | :--- | :--- |
| $(2+3)-7=2+(3-7)$ |  |  |
| $3(2 \times 5)=(3 \times 2) \times 5$ |  |  |
| $6-(7-2)=(6-7)-2$ |  |  |
| $10+[4+(2+5)]=[10+(4+2)]+5$ |  |  |
| $2[4(5 \times 3)]=[2(4 \times 5)] \times 3$ |  |  |

## PROBLEM 3:

Take each example and first decide if the left and right sides of the equal signs are equivalent. That would mean the equals sign makes the statement true. Then, decide if the distributive property was used in the example.

| Example | Are the sides <br> equivalent? | Does it use the <br> distributive Property? |
| :---: | :---: | :---: |
| $2 \times(3+5)=2 \times 3+2 \times 5$ |  |  |
| $4+(2+6)=(4+2)+6$ |  |  |
| $7 \times[2 \times(4+5)]=2 \times[7 \times 4+7 \times 5]$ |  |  |

