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## Zero Property of Multiplication Identity Property of Multiplication

The ZERO PROPERTY OF MULTIPLICATION tells me that I can multiply any number by ZERO, and the PRODUCT will be ZERO!

The IDENTITY PROPERTY OF MULTIPLICATION tells me that I can multiply ONE by any number, and that number keeps its identity!

Directions: Use what you have learned about the ZERO PROPERTY OF MULTIPLICATION and the IDENTITY PROPERTY OF MULTIPLICATION to solve each problem.

| 1. $2 \times 1=$ | 2. $3 \times 0=$ |
| :---: | :---: |
| 3. $5 \times 1=$ | 4. $45 \times 0=$ |
| 5. $45 \times 1=$ | 6. $0 \times 0=$ |
| 7. $1 \times 1=$ | 8. $17 \times 0=$ |
| 9. $299 \times 1=$ | 10. $299 \times 0=$ |

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## Distributive Property of Multiplication

The DISTRIBUTIVE PROPERTY OF MULTIPLICATION tells me that I can multiply the sum of 2 numbers OR I can multiply the factor by each addend to get the same product.

The DISTRIBUTIVE PROPERTY OF MULTIPLICATION also tells me that I can multiply the 1 -digit factor by the value in the tens and ones place, then add to solve.

Directions: Use what you have learned about the Distributive Property of Multiplication to solve.

| $1.3 \times(2+3)=\ldots$ | $2.3 \times 43=$ |
| :--- | :--- |
| $3.2 \times(5+7)=\ldots$ | $4.5 \times 39=$ |
| $5.5 \times(2+4)=$ | $6.3 \times 41=$ |
| $7.3 \times(2+6)=$ | $8.4 \times 62=$ |
| $9.2 \times(6+3)=$ | $10.7 \times 34=$ |

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## Commutative Property of Multiplication Associative Property of Multiplication

The COMMUTATIVE PROPERTY OF MULTIPLICATION tells me that I can multiply my factors in any order and my products will stay the same.

The ASSOCIATIVE PROPERTY OF MULTIPLICATION tells me that I can group my factors in different ways but my product will stay the same!

Directions: Use what you learned about the Commutative Property of Multiplication and the Associative Property of Multiplication to solve.

| $1.3 \times 5 \times 2=\ldots$ | $2.6 \times 4 \times 3=$ |
| :--- | :--- |
| $3.3 \times 2 \times 7=\ldots$ |  |
| $5.5 \times 2 \times 8=$ | $4.4 \times 5 \times 2=$ |
| $7.4 \times 6 \times 2=$ | $6.4 \times 3 \times 2=$ |
| $9.5 \times 3 \times 1=$ | $10.3 \times 3 \times 4=$ |
|  | $8 \times 2=$ |

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## properties of Multiplication

Directions: Use what you have learned about the 5 Properties of Multiplication to solve the following problems.

| $1.3 \times 0=\ldots$ | $2.2 \times 3 \times 1=$ |
| :--- | :--- |
| $3.5 \times 23=\ldots$ | $4.3 \times(3+2)=$ |
| $5.6 \times 1=$ | $6.3 \times 6 \times 2=$ |
| $7.3 \times 54=$ | $8.2 \times(5+2)=$ |
| $9.5 \times 2 \times 4=\ldots$ |  |
| $11.4 \times 6 \times 2=+10$. | $12.3 \times(4+2)=$ |

