

OBJECTIVE: Using the order of operations **MATERIALS:** Three index cards or small pieces of paper

Review the order of operations to help you with this activity.

- Order of Operations**
1. Perform any operations inside grouping symbols.
 2. Simplify any term with exponents.
 3. Multiply and divide in order from left to right.
 4. Add and subtract in order from left to right.

Example

Write + on the first index card, - on the second card, and × on the third card. Shuffle the cards and place them face down on your desk. Pick cards at random to fill in the blanks with operation signs. Once you have filled in the operation signs, simplify the expression.

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|---|---|
| $6 \underline{\quad} (9 \underline{\quad} 7) \underline{\quad} 8$ | ← Pick cards to fill in the blanks with operation signs. |
| $6 \cdot (9 - 7) + 8$ | ← Subtract 7 from 9 inside the grouping symbols. |
| $6 \cdot 2 + 8$ | ← Do multiplication and division first. Multiply 6 by 2. |
| $12 + 8$ | ← Do addition and subtraction last. Add 12 and 8 to get the answer. |
| 20 | ← The answer is 20. |

Activity

Pick cards at random to fill in the operation symbols of the following expressions. Simplify the expressions.

- | | |
|---|--|
| 1. $7 \underline{\quad} 5 \underline{\quad} 1$ | 2. $(3 \underline{\quad} 9) \underline{\quad} 4$ |
| 3. $8 \underline{\quad} 2 \underline{\quad} (5 \underline{\quad} 10)$ | 4. $(3 \underline{\quad} 7 \underline{\quad} 6) \underline{\quad} 1$ |

Additional Exercises

Solve each expression by following the order of operations.

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|------------------------------|--------------------------------|
| 5. $(5 \cdot 3) - 18$ | 6. $2 \cdot (27 - 13 \cdot 2)$ |
| 7. $18 \div (9 - 15 \div 5)$ | 8. $2 \cdot 8 - 6^2$ |