

Operation Quest

Follow each step in the right order.

GRADE 5 • 5.CE.4

5.CE.4 "The student will simplify numerical expressions with whole numbers using the order of operations. Use order of operations to simplify numerical expressions with whole numbers, limited to addition, subtraction, multiplication..."

NAME _____

DATE _____

CHOOSE THE ORDER

Complete what is inside parentheses first. Next, multiply or divide from left to right. Last, add or subtract from left to right.

WORKED EXAMPLE

$$18 + 6 \times (9 - 4)$$

1. $18 + 6 \times 5$

2. $18 + 30$

3. 48

Answer: 48

PRACTICE 6 problems

1 $7 + 5 \times 3$

ANSWER _____

2 $(16 - 8) / 2 + 11$

ANSWER _____

3 $24 / 3 \times 5 - 7$

ANSWER _____

4 $12 + 20 / 5 + 1$

ANSWER _____

5 For $14 - 2 \times 7 + 10$, name the first, second, and third operations you complete. Then simplify.

ANSWER _____

6 $(15 + 3) \times 2 - 8$

ANSWER _____

APPLY IT Show your work

- 1** At robotics club, students earn 35 points and lose 15 points. The remaining points are shared equally by 5 teams. Then each team earns 7 bonus points. How many points does each team have?

WORK SPACE

ANSWER _____

- 2** A card club has 7 packs with 5 cards in each pack. The club gives 14 cards away, then shares the rest equally among 3 prize winners. How many cards does each winner get?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Simplify $(31 - 7) / 3 + 5 \times 3$. Then name the first, second, third, and fourth operations you complete.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$7 + 5 \times 3$	22
2	$(16 - 8) / 2 + 11$	15
3	$24 / 3 \times 5 - 7$	33
4	$12 + 20 / 5 + 1$	17
5	For $14 - 2 \times 7 + 10$, name the first, second, and third operations you complete. Then simplify.	First multiply 2×7, second subtract $14 - 14$, third add 10; 10.
6	$(15 + 3) \times 2 - 8$	28

PART 2 • APPLY IT

1. **11 points** Subtract 15 from 35, divide by 5, then add 7. $(35 - 15) / 5 + 7 = 11$.
2. **7 cards** Multiply 7 by 5, subtract 14, then divide by 3. $(7 \times 5 - 14) / 3 = 7$.

CHALLENGE

23. First subtract $31 - 7$, second divide 24 by 3, third multiply 5×3 , fourth add $8 + 15$.

Accept equivalent wording for the operation order, as long as the student shows parentheses first and uses left-to-right order when needed. Require both the final value and the named steps for items that ask for operation order.