

# Order of Operations Bingo Level 1



Order of Operations Bingo Level 1 includes a mini-lesson to review and practice order of operations skills, 24 math problem cards, 32 Bingo boards, an answer key, and student directions. Order of Operations Bingo can be played in a whole group setting, with small guided math groups, in math centers, or in cooperative learning teams. There are two versions of Order of Operations Bingo which are sold separately. This version, Level 1, has easier problems, and the problems don't include exponents. Therefore, the mini-lesson for Level 1 uses the acronym PMDAS instead of the more well-known PEMDAS. See page 4 for details.

## **Materials Included:**

- Order of Operations Level 1 Review Page
- Order of Operations Level 1 Practice Page (and Answer Key)
- Class Bingo Directions
- Team Bingo Directions
- 24 Order of Operations Level 1 Problem Cards
- Order of Operations Level 1 Answer Key
- 32 Order of Operations Level 1 Bingo Boards

## **Advanced Preparation**

Print one Bingo Board for each student, and one set of Order of Operations problem cards for the class or for each small group. Laminate the cards and Bingo boards before use if possible. If you

are planning to use both Level 1 and Level 2 in the same classroom, you may want to print all the materials for each level on different colored paper. Each player will also need an individual dry erase board with a marker to work out the problems. Provide plastic Bingo chips or other items such as dried beans to cover answers.

## Order of Operations Level 1 Test and Retest

Order of Operations Bingo is a great for review and practice, but to assess mastery of these skills, you'll need to administer some type of individual assessment. You can find two ready-to-use Order of Operations tests for Level 1 in my TpT store. Administer the first version of the test to determine who needs extra practice, provide additional practice for those students, and use the second version as a retest. Click <u>HERE</u> to find these two assessments on TpT.



## Level 1

#### **Teaching Suggestions**

- 1. Order of Operations Review Begin by displaying the Order of Operations Review page on an overhead projector or interactive whiteboard. Explain each part of the review page as needed.
- 2. Individual Practice or Partner Pass Next, display the Order of Operations Practice page and review the sample problem. Use the six problems on the bottom of the page for practice. To save paper, have students work the problems on individual dry erase boards, one at a time, holding them up for you to check after each problem. You can ask one student to work out each problem in a step-by-step manner under a document camera or on the class whiteboard. For a variation, allow students to work with a partner on this activity. Ask them to share one dry erase board and pass the board back and forth after each step. Working with a partner encourages discussion and helps to clear up problems right on the spot.
- 3. Class Bingo Distribute one Bingo board and a handful of Bingo chips to each student. For the class, you'll need just one set of Bingo cards. Follow the Order of Operations Class Bingo directions on page 7. To discourage guessing, require students to work the problems out, step by step, and ask them to show you their work during the "Showdown" phase of the activity. Check their answers before revealing the solution, and discuss the solutions as needed. To hold students accountable for their work, remind them that they can only cover the answer on their Bingo board if they solved the problem correctly before the answer was revealed to the class.
- 4. Team Bingo Students can play Order of Operations Team Bingo by following the directions on page 8. Be sure to review the directions with the class before you allow students to play in teams. The directions are similar to Class Bingo but not exactly the same. This game can be effective if you have students on different levels. Several groups can be playing the Level 1 game while others can play the Level 2 version. Allowing students to work in teams gives you, the teacher, the opportunity to move around the room and observe how they are interacting and solving the problems. However, students who have special needs or struggle in math will need a teacher assistant, parent volunteer, or student "expert" to supervise the game and to provide assistance with solving the problems.



Math Centers. Team Bingo also works well in a math center or station. Just store all the materials in a large brown envelope with the directions laminated onto the front. You'll need four game boards, one set of problem cards, and an answer key for each packet. Be sure to keep a jar of Bingo chips or dried beans nearby. For more information on how to effectively implement math stations, click <u>HERE</u> to learn more about Math Stations for Middle Grades.



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Order of Class

## Order of Operations Review

Algebraic expression:  $3 \times (4 + 8)$ Algebraic equation:  $3 \times (4 + 8) = x$ 

When we find the answer to the problems above, we say that we "evaluate" the expression or we "solve" the equation. When a math problem includes several operations,

P - Parentheses

M or D - Multiplication or Division (left to right) A or S - Addition or Subtraction (left to right)

we must perform those operations in a certain order:

Some people remember the order of the letters with this silly saying:



## Pass My Dad A Sandwich

However, this can get tricky! Multiplication and division problems are solved before addition or subtraction, but their order is determined by which comes first in the problem. For example, in the expression  $18 \div 2 \times 3$ , you would first divide 18 by 2 and then multiply by 3. The operations of addition and subtraction follow the same rules. This 3-step graphic organizer may help you remember the order of operations:





## Order of Operations Class Bingo

### **Materials**

24 Order of Operations Bingo problem cards with answer key, 1 Bingo board and 15 or 20 Bingo chips per player, individual dry erase boards and markers

### Directions

- 1. Each player is given a Bingo board and a handful of Bingo chips. All players start by covering the starred free space with a chip.
- 2. The teacher shuffles the problem cards and turns over the top card. He or she shows the problem to the class using a document camera or by writing it on the board.
- 3. All students write the problem on their dry erase boards and solve it, step by step, using the correct order of operations. Players turn their dry erase boards face down when ready.
- 4. When everyone is ready, the teacher says "Showdown!" All students shows their boards, and the teacher checks their work. A student is chosen to display the solution and to explain how the problem was solved. The teacher guides a class discussion if needed.
- 5. Everyone with the correct answer may place a Bingo chip on the answer on his or her Bingo board.
- 6. Repeat with additional problem cards until one player earns a "Bingo" by covering an entire row horizontally, vertically, or diagonally.
- 7. All players clear their boards and the deck of problem cards is shuffled before starting a new game.

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## **Order of Operations Team Bingo**

## **Materials**

24 Order of Operations Bingo problem cards with answer key, 1 Bingo board and 15 or 20 Bingo chips per player, dry erase boards and markers or pencil and pape

### Directions

- Each player takes a Bingo board and a handful of Bingo chips. All players start by covering the starred free space with a chip. The first Bingo Captain shuffles the problem cards and places the cards and the answer key face down in the center of the team.
- 3. The Bingo Captain flips over the top card and shows it to the team. Everyone writes the problem on his or her dry erase board. All players solve the problem without talking and turn their dry erase boards face down when ready.
- 4. When all boards are face down, the Bingo Captain says "Showdown!" Everyone shows using the answer key. Discuss solutions, talk over incorrect answers, and give help as needed.



Order of Operations Bingo - Level 1

2 36 8

20 33 17 10

13

22 18 32

15

their answers, and the Captain checks the answers



- 5. Everyone with the correct answer may place a Bingo chip on the answer on his or her Bingo board.
- 6. Rotate the role of Bingo Captain to the left for each problem, and repeat steps 3 through 5. The winner is the first to earn a "Bingo" by covering an entire row horizontally, vertically, or diagonally.
- 7. Before starting a new game, all players clear their Bingo boards.

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