# 2nd Grade Math: Subtraction Across Zeros

### What Does Subtraction Across Zeros Mean?

**Subtraction across zeros** occurs when subtracting numbers involves zeros in the minuend (the number from which another number is subtracted) in any place value. This can make the subtraction a bit tricky, as it often requires regrouping.

## Steps for Subtracting Across Zeros

1. **Line Up the Numbers**: Write the numbers one above the other, aligning them by place value (hundreds, tens, and ones).
2. **Check the Ones Place**: Start by looking at the ones place. If the top digit is smaller than the bottom digit, you need to borrow.
3. **Regroup Across Zeros**: If you need to borrow from a zero, you will have to borrow from the next non-zero digit to the left. This may involve borrowing from multiple place values.
4. **Perform the Subtraction**: After regrouping, subtract as normal.
5. **Write the Final Difference**: Combine the results to get the final answer.

## Example 1: Subtracting Across Zeros

**Problem**: Subtract 205 - 138.

**Step 1**: Line up the numbers.

```diff
  205
- 138
```

**Step 2**: Subtract the ones place:
5 - 8 cannot be done without regrouping.

**Step 3**: Regroup:

- Borrow from the tens place (0), but since it's zero, we borrow from the hundreds place (2 becomes 1), and the tens place becomes 10.

```diff
  1 10
-  1 3 8
```

Now, the ones place is 10:
10 - 8 = 2.

**Step 4**: Subtract the tens place:

1 - 3 cannot be done without borrowing, so we need to borrow again from the hundreds:

Now the hundreds becomes 0, and the tens becomes 11.

```diff
  0 11
-  1 3 8
```

Now, subtract the tens place:

11 - 3 = 8.

**Step 5**: Subtract the hundreds place:

0 - 1 = -1, which we don't need because we have no hundreds left to subtract.

**Final Sum**: The difference is **67**.

## Example 2: Subtracting Across Zeros

**Problem**: Subtract 402 - 217.

**Step 1**: Line up the numbers.

```diff
  402
- 217
```

**Step 2**: Subtract the ones place:

2 - 7 cannot be done without regrouping.

**Step 3**: Regroup:

- Borrow from the tens place (0), which requires borrowing from the hundreds (4 becomes 3), and the tens place becomes 10.

```diff
  3 10
-  2 1 7
```

Now, the ones place is 10:

10 - 7 = 3.

**Step 4**: Subtract the tens place:

0 - 1 cannot be done without borrowing again, so borrow from the hundreds (3 becomes 2), and the tens place becomes 10.

```diff
  2 10
-  2 1 7
```

Now, subtract the tens place:

10 - 1 = 9.

**Step 5**: Subtract the hundreds place:

2 - 2 = 0.

**Final Sum**: The difference is **185**.

## Practice Problems

1. Subtract the following numbers:

- 504 - 258 = ___
- 300 - 145 = ___
- 600 - 452 = ___

2. Fill in the blanks:
   - 700 - ___ = 256
   - ___ - 380 = 220
3. Solve these subtraction problems across zeros:
   - 502 - 299 = ___
   - 600 - 405 = ___

## Conclusion

Subtraction across zeros is an important skill that helps students handle more complex subtraction problems effectively. By practicing the steps and engaging in fun activities, students can build confidence and proficiency in subtracting numbers that require borrowing from zeros.