

Math Class: Adding and Subtracting Two-Digit Numbers

Welcome, everyone, to our first math class! Today, we're going to learn how to add and subtract two-digit numbers. Don't worry, it's easier than it sounds! We'll go through some examples step by step, so you can follow along. We'll start with addition and then move on to subtraction. By the end of this class, you'll be able to solve these problems like a pro!

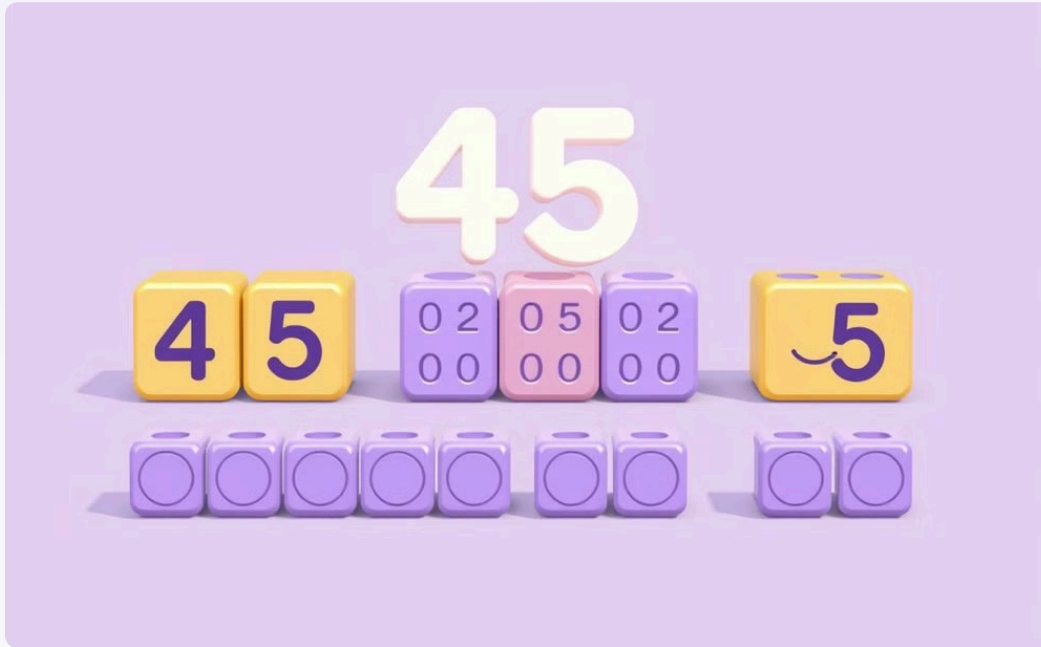


Adding Two-Digit Numbers with Carry Over

Step	Action	Example
1	Add ones place	$5 + 8 = 13$
2	Write 3, carry over 1	Write 3 in the ones place, carry 1 to tens
3	Add tens place with carry-over	$4 + 2 + 1 = 7$
4	Write 7	Write 7 in the tens place

Let's add $45 + 28$. First, we look at the ones place: $5 + 8 = 13$. Since 13 is more than 9, we write down the 3 in the ones place and carry over the 1 to the tens place. Now, we add the tens place: $4 + 2 + \text{the carry-over } 1 = 7$. So, we write 7 in the tens place. The answer is 73! Remember to always start with the ones place.

Visual Representation of Addition



Representing 45

Here we have 45. Notice the 4 rows of ten blocks each (representing 40), and then 5 individual blocks. This helps us visualize what the number actually represents!

This is the magic of adding two-digit numbers.



Representing 28

Here are the blocks for 28. We have 2 rows of ten blocks and 8 individual blocks. When we add these together with the blocks for 45, we can see how we need to regroup (carry over) when we get more than 10 individual blocks.

$$52 - 27 = ?$$

$$52 - 27?$$

$$12 - 2 - 7 = 4 =$$

$$4 - 2 = 2 : 25$$

Subtracting Two-Digit Numbers with Borrowing

When subtracting, if the top number in the ones place is smaller, we need to borrow from the tens place to make it bigger!

Let's subtract $52 - 27$. First, we look at the ones place: $2 - 7$. Oh no! 2 is smaller than 7, so we can't subtract directly. We need to borrow 1 from the tens place (from the 5 in 52). That 5 becomes a 4, and the 2 becomes 12. Now we can subtract: $12 - 7 = 5$. We write 5 in the ones place. Then, we subtract the tens place: $4 - 2 = 2$. We write 2 in the tens place. So, $52 - 27 = 25$!

Visual Representation of Subtraction with Borrowing



Borrowing to subtract.

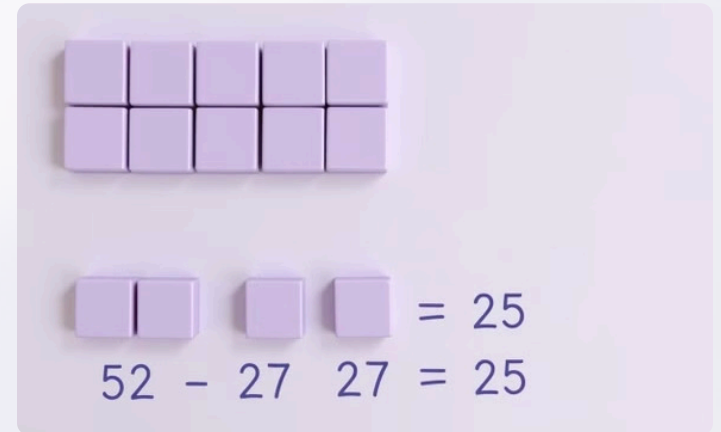
$$52 - 27 = ?$$

52 =



$$10 - 12 = 27$$

$$40 + 12 = 52$$

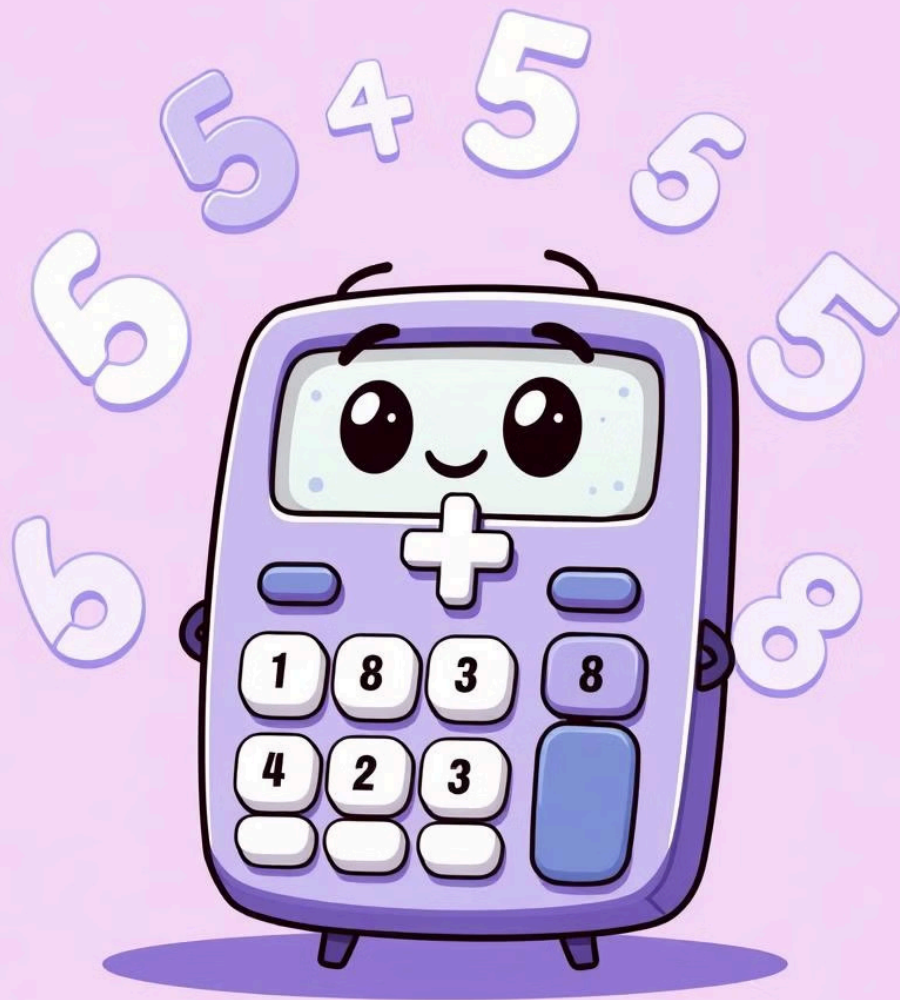


Subtracting with blocks makes borrowing much easier to understand. As you can see, we break apart one of the groups of ten to add ten individual blocks to the ones column. Then, it's a simple subtraction!

Key Takeaways: Addition

- Always start with the **ones place**.
- If the sum in the ones place is **10 or more**, carry over the **1** to the tens place.
- Add the tens place, including the **carry-over** if there is one.

Remember these key steps for addition! Always start by adding the numbers in the ones place. If that sum is ten or more, carry the one over to the tens place. And finally, don't forget to add that carry-over when you're working in the tens place!



Key Takeaways: Subtraction

- Always start with the **ones place**.
- If the number on top in the ones place is **smaller** than the bottom number, you need to **borrow** from the tens place.
- **Borrow 1** from the tens place, reducing the tens digit by 1, and add 10 to the ones place.
- Then subtract the tens place

Subtracting is similar. Always begin with the ones place! If you cannot subtract because the top number is smaller, you'll need to borrow from the tens column. Don't forget to reduce the number in the tens place by one when you borrow, and then add ten to the ones place! Once you do that, you'll be ready to subtract!

Practice Questions

1. Addition: $34 + 47 = ?$
2. Addition: $56 + 29 = ?$
3. Subtraction: $64 - 38 = ?$
4. Subtraction: $75 - 42 = ?$

Now it's your turn to practice! Here are some addition and subtraction problems for you to try. Remember the steps we learned today. Don't be afraid to use your fingers or draw blocks to help you. I believe in you! Keep practicing, and you'll become amazing at adding and subtracting two-digit numbers!