SUBTRACTION WITHIN 20

A DEFINITIONS

Definition Subtraction

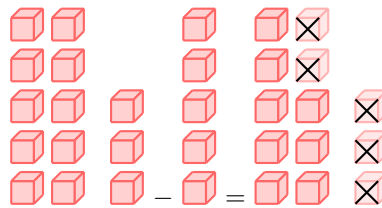**Subtraction** means taking something away. When we subtract, we find out how many are left.

- The $-$ symbol means "subtract."

- The $=$ symbol shows that the two sides are the same.

We can represent subtraction as:
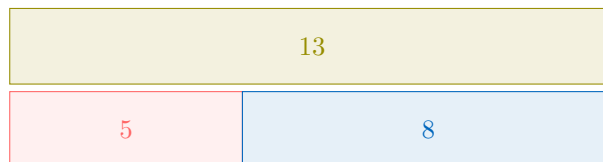
- **Numbers**:

$$13 - 5 = 8$$

- **Cubes**:

- **Fingers**:

- **Words**:
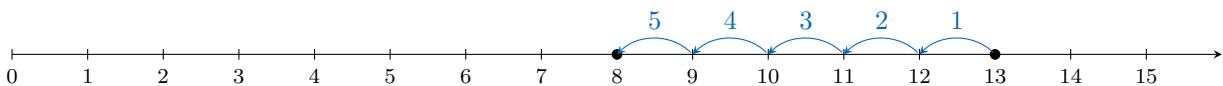
thirteen minus five equals eight

- **Part whole model**:

B NUMBER LINE METHOD

Method Subtracting using the Number Line

We want to find $13 - 5$.

- Place a marker on 13.

- Move 5 steps backward.

So, $13 - 5 = 8$.

C MAKING 10 METHOD

Method Subtracting with the Making 10 Method

To subtract $13 - 5$, we can break down the subtraction into two steps by first making 10.

- 1. **Start with 13**: We have 13 as our starting number.
  2. **Make 10**: Ask yourself, **How many do we need to reach 10?** Since we're subtracting, we need to remove 3 first to reach 10. Now, we're left with $13 - 3 = 10$.
  3. **Finish the Subtraction**: We still need to subtract 2 more from 10, which gives us $10 - 2 = 8$.

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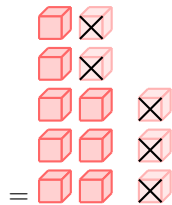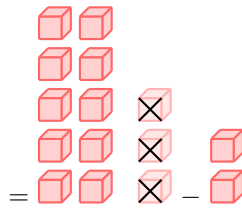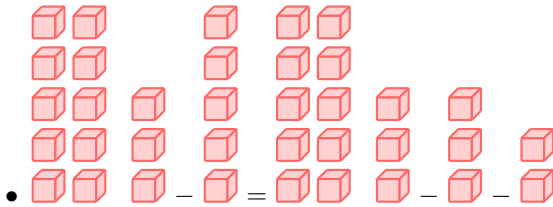
- $13 - 5 = 13 - 3 - 2$
    $= 10 - 2$
    $= 8$

So, $13 - 5 = 8$.
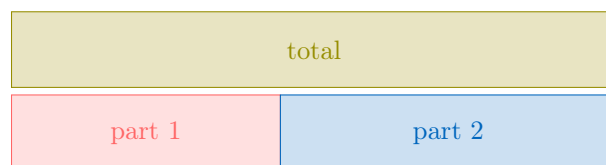
D ADDITION AND SUBTRACTION LINK

Proposition Addition and Subtraction Link

Addition and Subtraction are opposites:Adding and subtracting are opposites:

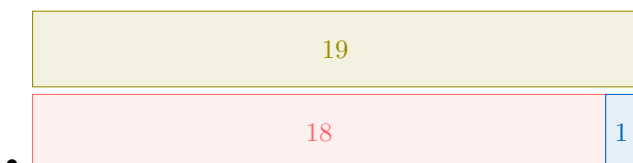$$\text{part 1} + \text{part 2} = \text{total}$$
$$\text{total} - \text{part 1} = \text{part 2}$$
$$\text{total} - \text{part 2} = \text{part 1}$$

Ex: Calculate: $19 - 18$

Answer:

-

- Because $18 + 1 = 19$, $19 - 18 = 1$

Method **Counting On**

For $13 - 9$:

1. Start with 9.

2. Count forward 10, 11, 12, 13. We added 4 numbers to reach 13.

So, $13 - 9 = 4$ because $9 + 4 = 13$.

13	
9	4

E PROBLEM-SOLVING METHODS

In math, we often need to find answers to problems that involve either adding or subtracting. Here's how we can solve these problems step-by-step.


Method **Steps to Solve Word Problems**

1. **Understand the Problem**: Read the problem carefully. Look for keywords like "altogether" for addition or "left" for subtraction.

2. **Decide on the Operation**: Determine whether you need to add or subtract to solve the problem.

3. **Set Up the Equation**: Write the equation that matches the problem. If you are finding the total, use addition. If you are finding what is left, use subtraction.

4. **Solve and Check**: Solve the equation. After you find the answer, check if it makes sense with the problem.

Ex: You have 5 candies, and your friend gives you 3 more. How many candies do you have now?

Answer:

- Start with the 5 candies you have, and add the 3 candies your friend gave you.

total candies

x	
5	3

your candies   friend's candies
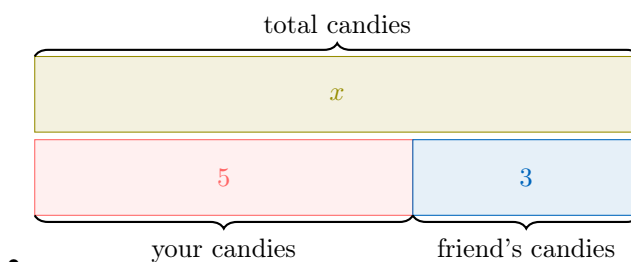
-
- $5 + 3 = 8$
- So, you have 8 candies in total.