

SUBTRACTION WITHIN 1000

A WHAT IS SUBTRACTION?

Definition Subtraction

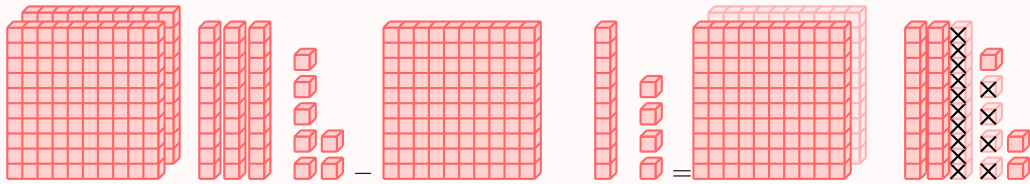
Subtraction means taking an amount away from a group to find out what is left. This result is called the **difference**. The **minus sign** ($-$) tells us to subtract.

We can show "two hundred thirty-seven minus one hundred fourteen equals one hundred twenty-three" in different ways:

- With Numbers:

$$237 - 114 = 123$$

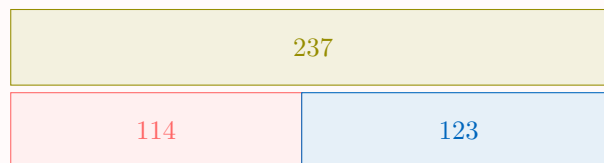
- With Cubes:



- With Column Subtraction:

$$\begin{array}{r} 237 \\ - 114 \\ \hline 123 \end{array}$$

- With a Part-Whole Model:



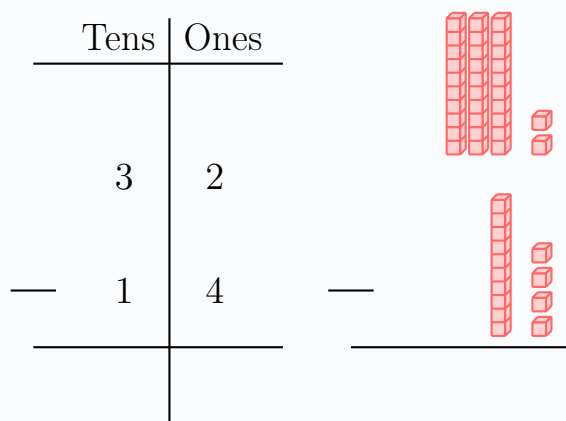
B AN ALTERNATIVE STRATEGY: COMPENSATION

Method Subtraction by Compensation

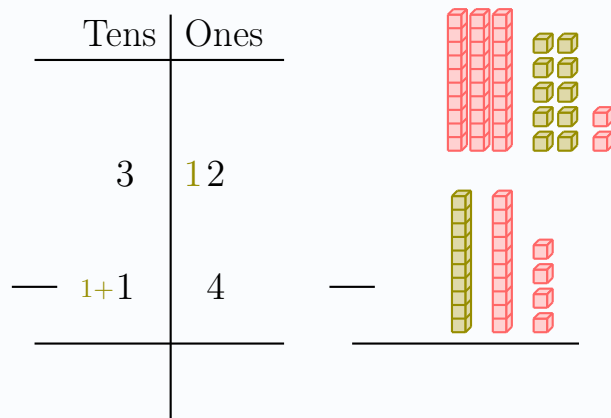
Let's calculate:

$$32 - 14$$

- Step 1: Set up the subtraction.

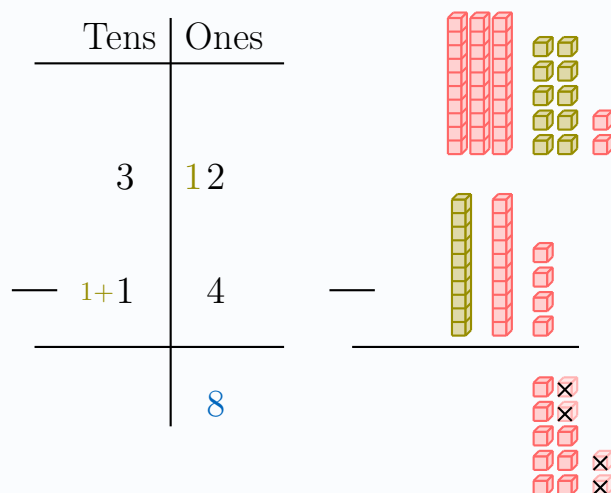


- Step 2: Check the ones place. We need to do $2 - 4$, but we don't have enough ones.
- Step 3: Compensate. Add 10 to both numbers (10 ones to the top; 1 ten to the bottom)



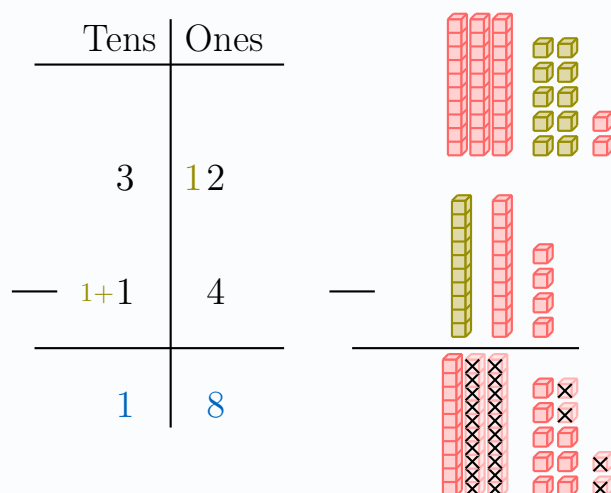
- **Step 4: Subtract the ones.** Now it's easy:

$$12 \text{ ones} - 4 \text{ ones} = 8 \text{ ones}$$



- **Step 5: Subtract the tens.**

$$3 \text{ tens (from 32)} - 1 \text{ ten (from 14)} - 1 \text{ ten (compensated)} = 1 \text{ ten}$$



- **Result:** The difference is 1 ten and 8 ones. So,

$$32 - 14 = 18$$

