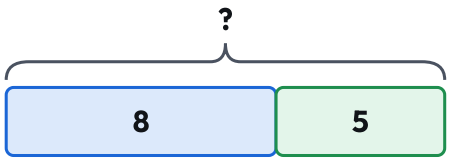
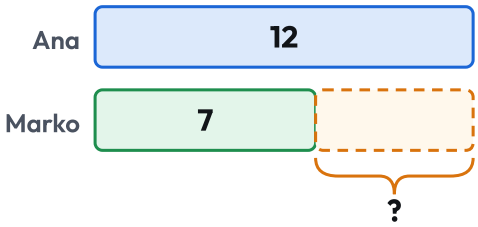
Names (pair) _____ Date _____

What Adding and Subtracting Mean

Example



$8 + 5 = ?$

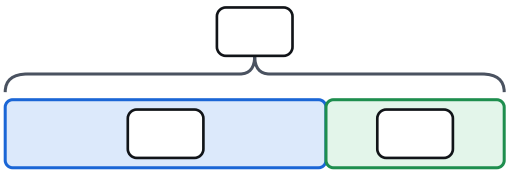


$12 - 7 = ?$

A **bar model** shows what we know and what we are looking for. The parts together make the **whole**: to find the whole, we add. To find a **part** or a **difference**, we subtract.

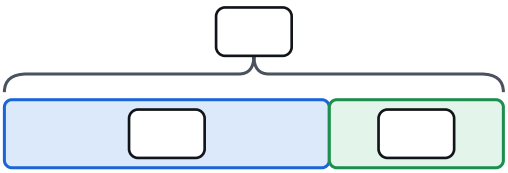
1 IN PAIRS Write the known numbers and a question mark in the bar model, then write the calculation and solve the problem.

a) There are 27 passengers on a bus. At a stop, 15 more get on. How many passengers are on the bus now?



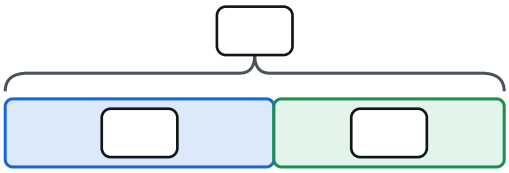
calculation: _____

b) There were 43 birds on a branch. Some flew away and 28 were left. How many birds flew away?



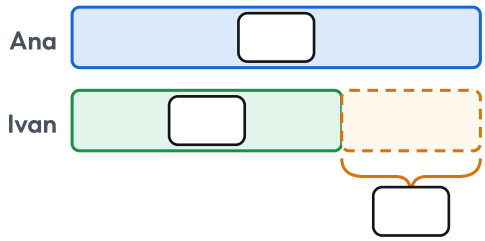
calculation: _____

c) There are 26 pupils in a class. 14 are girls. How many are boys?



calculation: _____

d) Ivan has 35 stickers. Ana has 18 more stickers than Ivan. How many stickers does Ana have?



calculation: _____

In which problems did you add, and in which did you subtract? How did you decide?

_____

Names (pair) _____ Date _____

Remember

Addition and subtraction are **inverse operations**. From $15 + 28 = 43$ it follows that $43 - 28 = 15$ and $43 - 15 = 28$. So we can also find a difference by **counting on**: $43 - 28 = ?$ means "how much from 28 to 43?", that is, $28 + ? = 43$.

2 ON YOUR OWN The unknown is in a different place each time. Write the missing number.

$\square + 17 = 40$ $\quad 56 - \square = 30$ $\quad \square - 25 = 18$

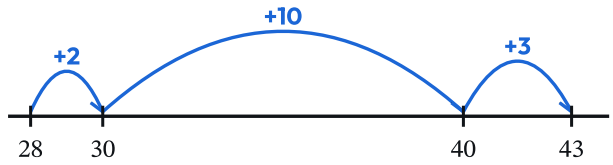
$34 + \square = 61$ $\quad 90 = \square + 45$ $\quad 72 - 38 = \square$

3 IN PAIRS **Fact family.** Use the three numbers to write two additions and two subtractions.

18, 47, 65

125, 75, 200

4 IN PAIRS Use counting on along an empty number line to work out $62 - 37$, as in the example $43 - 28$.



$43 - 28 = 2 + 10 + 3 = 15$ $\quad 62 - 37 = \square$

5 IN PAIRS **Find the mistake.** Problem: "Ana has 12 more stickers than Ivan. Ana has 30 stickers. How many does Ivan have?" Mia worked out $30 + 12 = 42$, "because it says more". What is wrong? Does a bar model help?

_____

_____

The Bar Model app · otooly.com/bar-model

Comparison mode: under **Unknown**, choose Ana, Mark and Difference in turn. The model stays the same, but the calculation changes. When do we add, and when do we subtract?

★ ON YOUR OWN **Exit card.** $\square + 26 = 61$ Is it the same number as $61 - 26$? **yes** / **no**