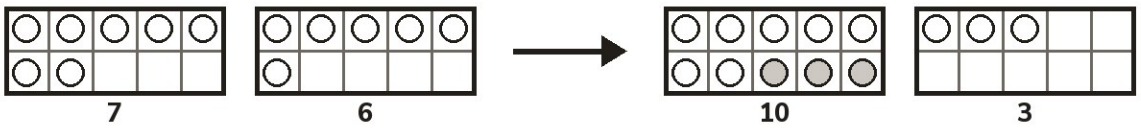
7 plus 6: helping your child fill the ten first

Parent page · ages 7–8 · goes with the video "Understand the concept"

Counting on is a good start

Does your child count "7, 8, 9, 10, 11, 12" and get 12 for 7 + 6? They counted the 7 as a step: the count should start at 8. Counting on is a real way to add, but your child has to keep track of two things at once, and it's easy to end up off by one. It isn't necessarily a lack of attention: mostly, there's no simple way to check.

The key idea



Before: 7 and 6
After: 10 and 3
Same total: 13 counters

To add 6 to 7, split 6 into 3 and 3: 3 fill the ten frame (7 + 3 = 10), 3 are left. So 7 + 6 = 10 + 3 = 13. We only moved counters, without adding or taking any away: the total doesn't change. The two parts aren't always equal: for 8 + 6, they're 2 and 4.

Three traps

A frame is only worth 10 when it's full: 7 counters in one frame and 6 in another don't make 20. Filling the ten isn't the only way: counting on, or 6 + 6 + 1, gives 13 too; and for 3 + 4, there's no need to go through 10. The equal sign means "the same amount on both sides": 7 + 6 = 10 + 3 is right; writing the steps in a row as 7 + 3 = 10 + 3 is wrong (10 on one side, 13 on the other).

Questions instead of corrections

- "How many empty boxes?"
- "How many does it take to fill the frame?"
- "Before you moved them, how many were there?"
- "How can you check?"

Counting again is a good way to check. Then: "Tell me how you know."

The activities

A sheet of paper, a pencil, and twenty small identical objects (short pasta, big buttons), out of reach of toddlers. Give your child only page 2: keep this parent page out of sight while they work.

A few days later, out of the blue (cut out)

You have 9 marbles.

Someone gives you 7.

How many in all? How do you know?

My total: _____

Read after your child has worked it out

- 7 and 6: the first frame has 3 empty boxes; 3 counters fill it; 3 are left: 10 and 3, which is 13.
- 8 + 6, 9 + 5, 7 + 7: 14 every time (10 and 4); it's the same 14 counters, split differently.
- "9 + 6 = 14" is wrong: 15 (10 and 5). "7 + 4 = 11" is right (10 and 1). "8 + 6 = 16" is wrong: 14, because the first frame isn't full.
- Challenge: 4 + 9, 5 + 8, and 6 + 7 make 13 (and, in the other order, 9 + 4, 8 + 5, and 7 + 6).
- Cut-out: 9 + 7 = 16; 1 counter fills the frame, 6 are left: 10 and 6.

A good sign: they talk about filling the frame or empty boxes, or they check by counting again. Another correct way is a good sign too. If not, do the frames again with other numbers: it often takes several tries.

Two ten frames: 7 plus 6



7 here, 6 there: two ten frames make 20!

Do you agree with Mina?

1. I predict

One frame with 7 counters, another with 6 counters. If we add them all:
there will be ..... counters in all.
Is the first frame full?
☐ yes ☐ no

How many empty boxes? _____

2. I fill the first frame

a. Draw two ten frames: two rows of five boxes, well apart.
b. Put 7 counters in the first frame, 6 in the second.
c. No counters? In pencil, color in 7 boxes in the first frame of the "Before" grid, 6 in the second.
d. Copy them into the "After" grid. Leave "Before" as is.
e. Move one counter at a time, from the second frame to the first.
f. On the "After" grid, erase one box in the second frame, then color one in the first.
g. Keep the total the same. Stop when the first frame is full.

3. I check

After: ..... counters in the first frame, ... in the second.
Total before: ..... Total after: .....
My prediction: ☐ was right ☐ needs changing

Changed your prediction? Great: you checked it yourself.

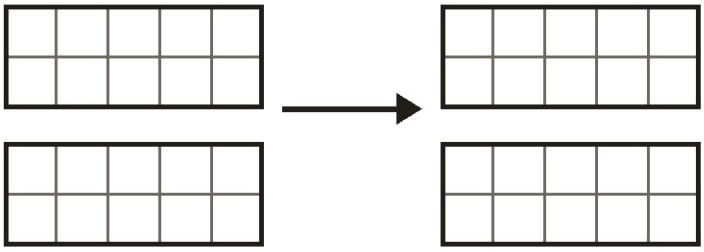
4. What about 8 + 6, 9 + 5, 7 + 7?

For each addition, put the counters in two frames (no counters: erase the "After" grid and color it in again), then fill the first.

8 + 6 = 10 + ... = ...
9 + 5 = 10 + ... = ...
7 + 7 = 10 + ... = ...

What do you notice?

Before **After**



One box = one counter. One frame = 10 boxes: 2 rows of 5.

5. Who's right?

Check with the frames. For each statement, circle right or not right.

9 + 6 = 14 ☐ right ☐ not right
7 + 4 = 11 ☐ right ☐ not right
8 + 6 = 16 ☐ right ☐ not right

When it's not right, the right total is: .....

6. I explain

Why doesn't the total change when you move counters from one frame to the other? Explain it to an adult.

7. Family challenge

Find additions of two numbers smaller than 10 that make 13. Check with the frames.
My additions: ..... + ... + ... + ...