

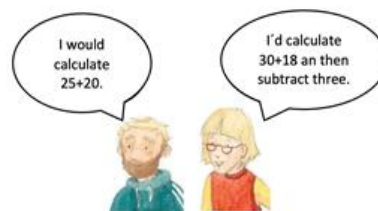
Information sheet for Parents

Solving difficult tasks with simple tasks

Dear parents, dear legal guardian,

In Maths lessons your child will learn how to calculate addition and subtraction tasks confidently. In doing so, simple tasks can help solving more difficult tasks. Considering tasks as linked together is easier than calculating every task on its own. But what are simple tasks? What are difficult tasks? How can we use easier tasks in order to solve difficult tasks? Let us take a look together:

Think about the following: How would you calculate $27 + 18$? How do the two people on the right hand side proceed? You will notice that there are several ways of how to calculate $27 + 18$. They all have in common that there is at least one additional task to solve the problem.

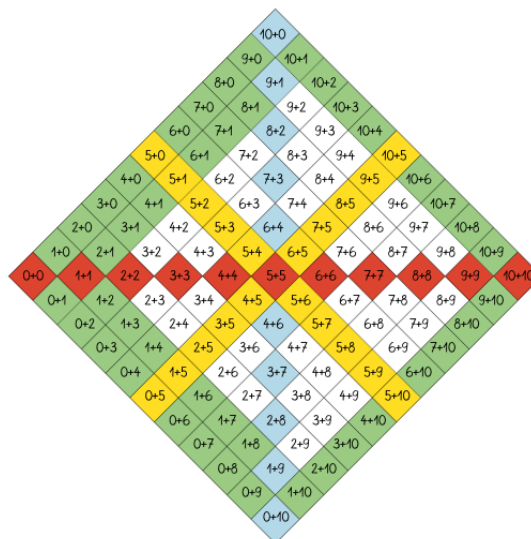


This means that tasks can be solved easier with the aid of other tasks. This knowledge can already help when learning addition tasks in the range of numbers from 0 to 20 and subtraction tasks in the range of numbers from 0 to 20. Rated as easy addition tasks in the maths class are:

Source: Illustration: K. Mosen

- Tasks including the **numbers 0, 1, 5 and 10** (all tasks along the edge of the square and the diagonal cross, e. g. $6 + 1$, $5 + 3$, $10 + 7$ or $7 - 5$, $13 - 10$, $7 - 1$, $18 - 0$ in the minus version) – they can be easily calculated with a one single spot, a stripe of 5 or a stripe of 10 (cf. page 3)
- Tasks with the partition of 10 (all tasks in the vertical line, e. g., $4 + 6 = 10$, or in subtraction tasks when numbers are subtracted from 10, e. g., $10 - 6$)
- Duplication tasks (all problems on the horizontal line, e. g., $4 + 4$, or bisection tasks like $8 - 4$)

→ all coloured tasks are “simple”

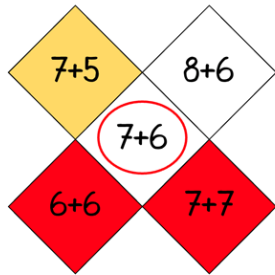


All the other tasks in the range of 0 to 20 are considered as “difficult” (non-coloured tasks in the chart). Those can be solved with the help of simple tasks as every difficult task has at least one easier task right next to it.

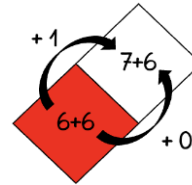
How to solve “difficult tasks” with the aid of “simple tasks”?

Using links between tasks

The task $7 + 6$ is a “difficult task”. There are 4 linked tasks with it, three of which are “simple problems”. Those can help when calculating $6 + 7$. Let us have a look at the link of $6 + 7$ to $6 + 6$ as an example:



7 is one more
than 6

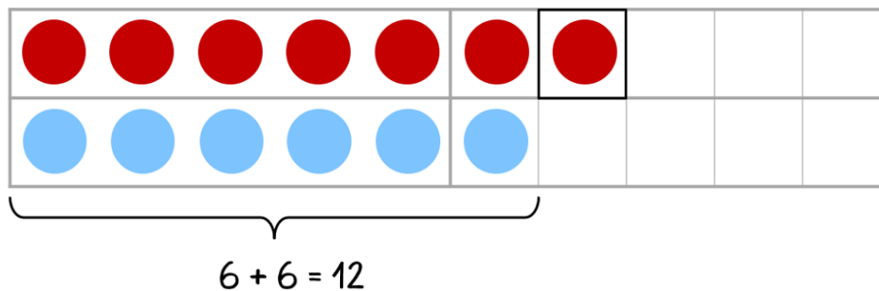


The second number is the same in both tasks

→ Because the initial amount of $7 + 6$ is one more than $6 + 6$, the result of $7 + 6$ must be one more than $6 + 6$, too

This can also be visualized on the dot field of twenty

The task $7 + 6$ shows one more spot in the upper row.
The total amount is one more.



How can you support your child while learning?

Pick two difficult tasks from the cart every day (cf. page 1). Motivate your child to solve the task with the aid of the simple ones next to it. The following ideas can help you:

- Put down the task $7 + 6$ on the dot field of twenty. Where do you see the task $6 + 6$?
- How does $6 + 6$ differ from $7 + 6$?
- Which other simple tasks could help you?

What is important:

- Encourage your child to put down the spots as clever as possible (a stripe of five instead of five single spots; a stripe of ten instead of ten single spots)
- Make your child speak about its findings (e. g. “Can you explain the difference between $6 + 6$ and $7 + 6$?”)

We wish you and your child a lot of fun practicing together! Thank you for your cooperation!

Material for practicing

