

Grade 2: Addition Facts

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2.OA.B.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Write a number in each box to make a true equation.

$$4 + 7 = \square$$

$$15 - 9 = \square$$

$$8 + 5 = \square$$

$$3 + \square = 12$$

Solution

Correct if student writes 11, 6, 13, and 9 in the boxes.

$$4 + 7 = 11$$

$$15 - 9 = 6$$

$$8 + 5 = 13$$

$$3 + 9 = 12$$

By the end of second grade, students are expected to know the answers to single-digit sums, without having to think about the answer. For example, students are expected to just know that $4 + 7$ equals 11 and $8 + 5$ equals 13. In related subtraction problems, like $15 - 9$, the answers should come easily.

In fact, at the end of second grade, the best way to answer $15 - 9$ is probably just to remember that $9 + 6 = 15$. So, $15 - 9 = 6$.

A next-best way to answer $15 - 9$ might be to think: First, $15 - 5 = 10$. Next, subtract 4 more, $10 - 4 = 6$. In other words,

$$\begin{aligned} & 15 - 9 \\ &= 15 - 5 - 4 \\ &= 10 - 4 \\ &= 6 \end{aligned}$$

This approach uses the knowledge that $9 = 5 + 4$ to turn the problem $15 - 9$ into a pair of easier problems, $15 - 5$ followed by $10 - 4$.

It is important that students know their single-digit sums and be fluent with related subtractions, so that they can efficiently add and subtract in cases like $263 + 178$ or $544 - 265$.

Elaboration on Alignment

There are three distinct kinds of problems here: (a) a sum that “crosses ten” (first and third boxes); (b) a difference that “crosses ten” (second box); and (c) finding a missing addend by subtracting (fourth box). In the first item, the smaller addend comes first; in the third item, the smaller addend comes second.

Learn More

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<https://bealearninghero.org/readiness-check/>

Name: _____

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