

Adding to 10 is Easy!

Once understanding of addition and numbers has been attained, some students work slowly to answer the questions. You may find students in Grade Two and even Grade Three who still have to ponder over these simple questions. We will assume that questions to 5 can be easily answered - so we need to work on the answers 6 to 10.

<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
5 + 1	6 + 1	7 + 1	8 + 1	9 + 1
4 + 2	5 + 2	6 + 2	7 + 2	8 + 2
3 + 3	4 + 3	5 + 3	6 + 3	7 + 3
		4 + 4	5 + 4	6 + 4
				5 + 5

Rule 1 - Always begin to add with the largest number.

If the question is $3 + 6 =$, add it as $6 + 3 =$.

Rule 2 - Questions adding one are easy. Count on one number.

Rule 3 - Questions adding two are easy, too. Count on two numbers.

Rule 4 - Doubles are easy, too. These are to be memorized. ($3 + 3$, $4 + 4$, $5 + 5$)

Rule 5 - If the numbers are just one apart, double the smaller number and add one.

$$4 + 3 = 3 + 3 + 1$$

How many questions are left? $5 + 3$, $6 + 3$, $7 + 3$ and $6 + 4$. If the student can count on the 3 steps, that leaves just one question!

Adding to 18 is Easy!

We usually have students struggling to memorize these in Grade Two and sometimes Grade Three when we want them to work quickly with larger numbers. Teach the tricks!

<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
9 + 2	9 + 3	9 + 4	9 + 5	9 + 6	9 + 7	9 + 8
8 + 3	8 + 4	8 + 5	8 + 6	8 + 7	8 + 8	
7 + 4	7 + 5	7 + 6	7 + 7			<u>18</u>
6 + 5	6 + 6					9 + 9

Rule 1 - Always begin adding with the largest number. That cuts the number of problems in half!

Rule 2 - Pretend 9 is 10, add the 10 and subtract 1 - the ones number in the answer will be one less than the number you are adding to the 9.

Rule 3 - Pretend 8 is 10, add the 10 and subtract 2 - the ones number in the answer will be two less than the number you are adding to the 8.

Rule 4 - Memorize the doubles.

Rule 5 - If the numbers you are adding are just one apart, double the smaller number and add one.

How many questions are left? Just $7 + 4$ and $7 + 5$!

Subtraction Tricks to 10

There are two ways to consider subtraction - take away and finding the difference. In most questions, one of these is easier to use than the other. Illustrate this on a number line.

Rule - If the numbers in the subtraction question are far apart and one number is small, subtract by taking away that number. If the numbers are close together, subtract by finding the difference between the numbers. For example, it is much easier to find the difference in $10 - 8$ than to say '10 take away 8'.

Subtraction Tricks to 18

Rule 1 - See the rule above.

Rule 2 - When subtracting 9, subtract 10 and add 1.

Rule 3 - When subtracting 8, subtract 10 and add 2.

Rule 4 - Use the doubles to subtract... $16 - 8 = 8$

Rule 5 - Count back 2 or 3.

That still leaves many questions.

Practice subtracting from the 10 and adding what is left....

$$15 - 7 = (10 + 5) - 7 = (10 - 7) + 5 = 3 + 5 = 8$$

Or..... To put it a different way, continue the pattern in rules 2 and 3 - subtract 10 and add the partner for 10.

From a teacher..... The following is another way to find the difference, and makes an easy 'trick' for the kids to use.

"If the problem was $15 - 8$: draw a ladder with 3 rungs. The bottom rung would be labelled 8, the middle 10 and the top 15.

The children know that it is 2 steps from 8 to 10, and 5 steps from 10 to 15, so $2 + 5 = 7$.

One more: $12 - 7$... bottom step 7, middle step 10, top step 12 $3 + 2 = 5$

The key is building off the steps from 10 which they knew. It really works and easily transfers to a mental strategy."

Multiplication is Easy, Too!

Teaching Multiplication

Show your students just how easy the multiplication facts are! Teach the facts in the following way....

1. Teach the students what the equations mean: 3×4 means 3 fours, 4×3 means 4 threes .
2. Make sure they understand that reversing the numbers gives the same answer.
3. Teach the $\times 2$ equations, and the reverse operations. As the students can count by 2s, this should be easy.
4. Teach the $\times 5$ equations and the reverse operations. As the students can count by 5s, this also should be easy.
5. Teach skip counting by 3 to 30 and by 4 to 40.
6. Relate the 3 and 4 times tables to the skip counting. Memorize the more difficult ones - 6×3 , 7×3 , 8×3 and 6×4 , 7×4 , 8×4
7. Teach the $\times 9$ trick..... if there is a 9 in a question - the first number in the answer will be one less than the number you are multiplying by 9, and the two numbers in the answer will add up to 9. So when multiplying 6×9 , the first number in the answer is 5 (one less than the 6) and the second number will be 4 because $5 + 4 = 9$ 54! Practice this until the children can do it really quickly every time they see a 9 in a question.
8. Teach these three doubles.... 6×6 , 7×7 and 8×8 and memorize the answers.
9. That leaves only three questions to learn! If the children memorize the answers to 6×7 , 6×8 , and 7×8 - they will know all the times tables to 9.

Here is another $\times 9$ trick! Lay your hands out on the desk in front of you. Pretend your fingers (and thumbs) are numbered 1 to 10, left to right. Now when you get a 9 question, put under the finger of the number you are multiplying by 9. Then the answer is the number of fingers on either side of this finger. For example, if you are doing 4×9 , put under the left hand pointer (the 4th finger). There are 3 fingers left up on the left and 6 on the right..... 36.

The 'can you count' trick is fun, too. When multiplying 3×4 , the answer is 12.... count 1 2....3 4.

The same thing happens with $7 \times 8 = 56$ count 5 6 7 8.

The times tables with a 4 in the question are double-doubles! Do $\times 2$, twice. 4×6 is the same as $2 \times 6 + 2 \times 6$ $12 + 12$.