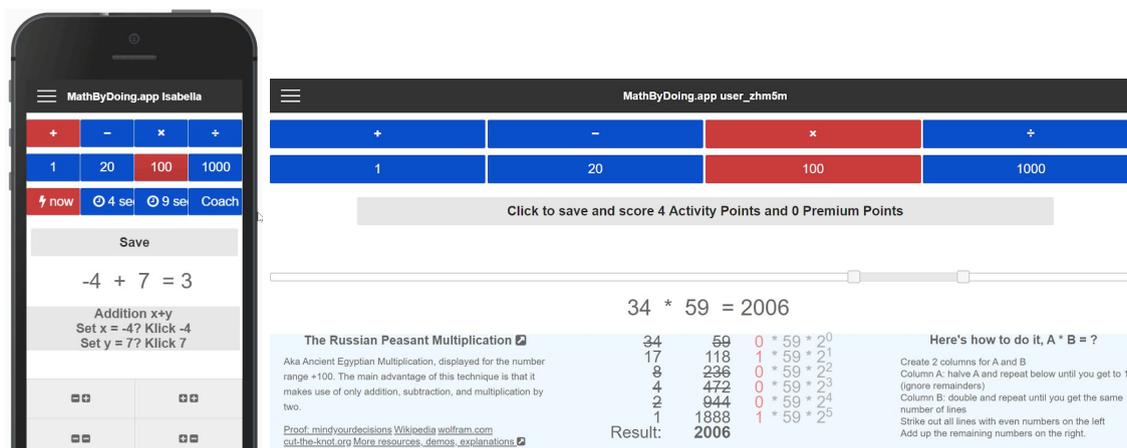


**MathByDoing.app lets you do the math with greater ease, higher speed. Give it a try. Use this math app regularly, 4 min. a day or so, at home or on the go with your mobile.**



## Making math easy, making math manageable - MathByDoing.app

Presently, during the lockdown, many students are struggling to stick to their schedule. And math training especially comes up short: often, students need more motivation for doing maths than just reading stuff or practicing languages. They perceive math as confusing, frustrating. You may get stuck, and so on. This fear is somehow funny, at least when it comes to basic arithmetic operations because these are part of our daily life. Therefore, many schools have implemented a 10 minute or so "basic operations" section to each math lesson to maintain and improve mental maths skills. And consequently, during school closures, teachers highly recommend keeping at least some math training going.

But how can you do this at home, on your own? You can't work on the same problems all the time, it's annoying. So you need new stuff, new tasks, new little challenges all the time. At the same time, they should not be too difficult, too challenging because it is all about motivation. So that you do it - and perhaps even have some fun.

Here is where MathByDoing.app kicks in. It is a Web App that runs on your mobile and your PC. This math app is responsive to the device and adapts to large computer screens or to touch screens.

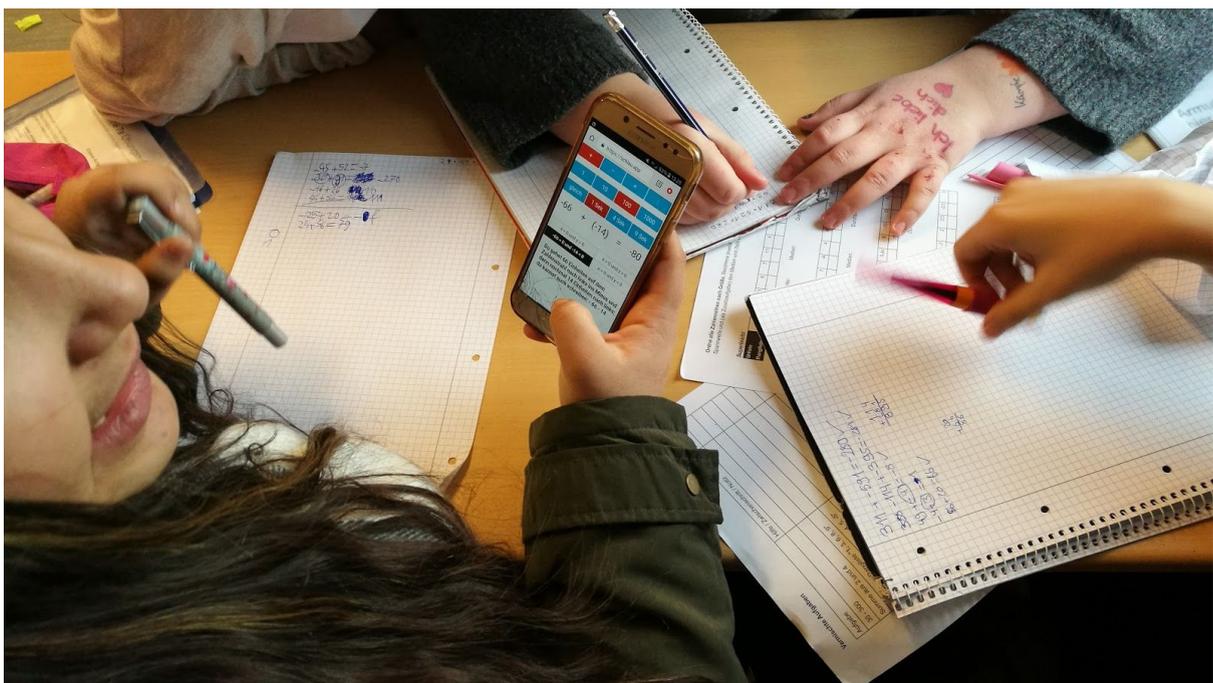
MathByDoing.app features a wide range of math tasks from primary school to 10th grade. It is a suite of three apps, ranging from basic arithmetic operations to lots of little exercises with one or two operands. For instance, the binomial expansion, the Pythagorean Theorem, linear expressions, algebra and expanding brackets, quadratic equations, and even completing the square on a "by doing" basis.

Part one is about the four basic arithmetic operations plus, minus, times, and divided. The number ranges are 1, 20, 100, and 1000.

You can get the two operand values with this slider. It has two handles. So, for  $a + b$ , you would adjust  $a$  and  $b$  with the left and the right handle, respectively.

- If you select a number range of 1 and greater than 0, percentage values will be displayed additionally.
- For a range of 1000, values show up rounded to the next 10 to keep this range accessible to mental math. Remember, it is not about accuracy here. It is about doing it and staying in the flow.
- If you select a time of 4 seconds, MathByDoing will display the result with this delay so that you can push yourself a bit.
- If you select a time of 9 seconds, MathByDoing lets you type the result, and if you are on time, the font color will switch to green if your result is correct, otherwise red.

Even with these few combinations, you can do mental math calculations in many ways and strive to get lightning-fast without the aid of a calculator and become proficient with numbers.



There is more, though, in part one of MathByDoing.app.

So far, in this video, we did operations with one single step. Now, I am going to show you three more with multiple steps: addition digit by digit and two fresh ways of multiplication.

First, let's take a look at the addition coach. It enables you to perform additions with multi-digit numbers, digit by digit.

Second, if you select the number range 100, both operands greater than 0, MathByDoing will present you the same task additionally with the method [Russian Peasant Multiplication](#). It can be very effective. The main advantage of this technique is that it makes use of only addition, subtraction, and multiplication by two.

The third unique technique is multiplication in a number range of 11 to 19. It is also known as Vedic Multiplication. This math trick lets you quickly multiply two numbers in your head. The

easiest way! As a prerequisite, you should know your times' tables reasonably well up to 10x10.

- <https://mathbydoing.app/>
- <https://mathbydoing.app/practice-mathematical-expressions-with-1-operand.html>
- <https://mathbydoing.app/practice-mathematical-expressions-with-2-operands.html>

