

Practice Tasks

digitChallenge



How To Use This Document

General Information

This document is designed to support you in preparing for your online numerical comprehension assessment.

It provides an overview of the assessment explaining what it measures and how it works.

It also provides 5 practice questions. After these practice questions, solutions and rationale have been provided to help you gain a deeper understanding. We would encourage you to attempt all the practice questions without looking at the solutions first.

digitChallenge

Aon's digitChallenge assessment measures your aptitude for numerical comprehension. It measures your ability to solve basic arithmetic functions such as addition, subtraction and multiplication.

In the assessment, you will receive instructions along with some practice tasks that you can take as many times as you like before you start the actual assessment.

How Does the digitChallenge Assessment Work?

You are presented with an equation which you need to solve. Instead of just solving the equation, you are only given the result, and need to find numbers from 1 to 9 to fill in the equation to make it correct. However, each number can only be used once. The equations use addition, subtraction and multiplication.

There can be multiple correct answers to each question.

Depending on your responses to the questions, the assessment will get harder or easier. The more questions you get correct, the harder the assessment will become but if you answer a question incorrectly, the assessment will become easier.

Guidance for the Practice Questions

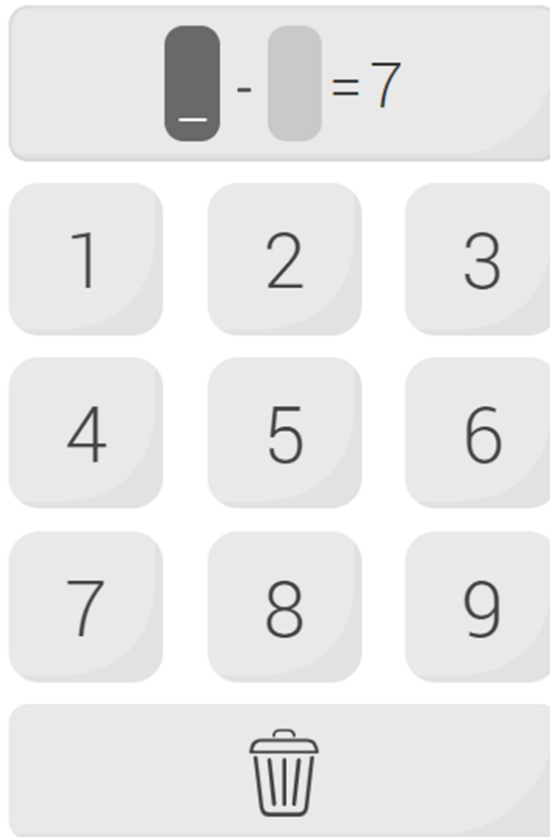
The actual assessment you will take is timed, but you are not expected to answer all the questions – you just need to work quickly and accurately, to try to get as many correct as possible in the time provided. As such, there is no specific time limit in the practice tests. Try to focus and complete them quickly in a single session.

You should write down your answers as you work through, so that you can compare your answers to the solutions at the end.

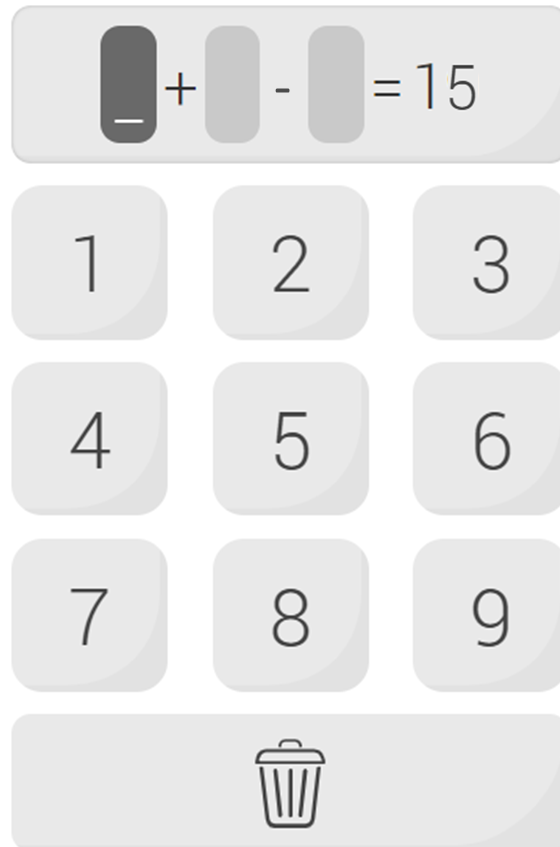
To continue to practice, spend time trying to solve basic calculations of subtraction, addition and multiplication.

Practice Tasks

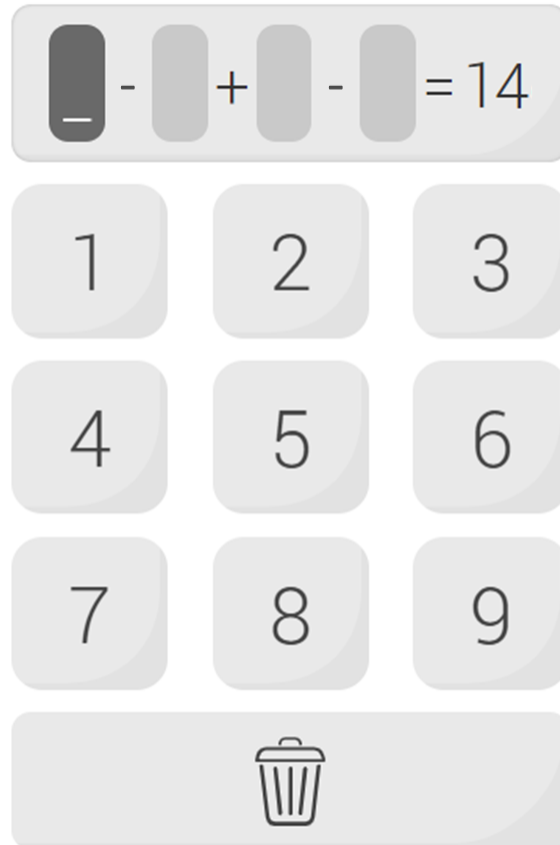
Example 1



Example 2




Example 3




Example 4

+ (x) = 46

1	2	3
4	5	6
7	8	9
		

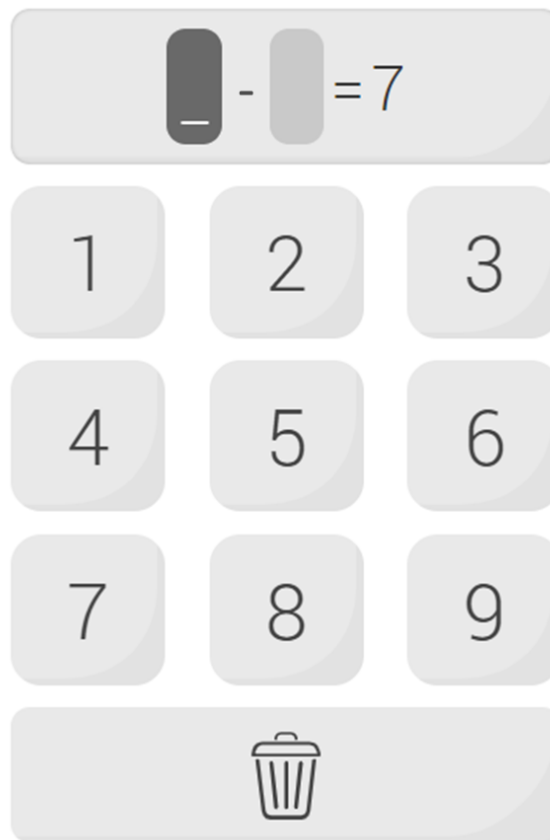
Example 5

$(\text{ } \times \text{ }) - \text{ } - \text{ } = 55$

1	2	3
4	5	6
7	8	9
		

Solution & Rationale

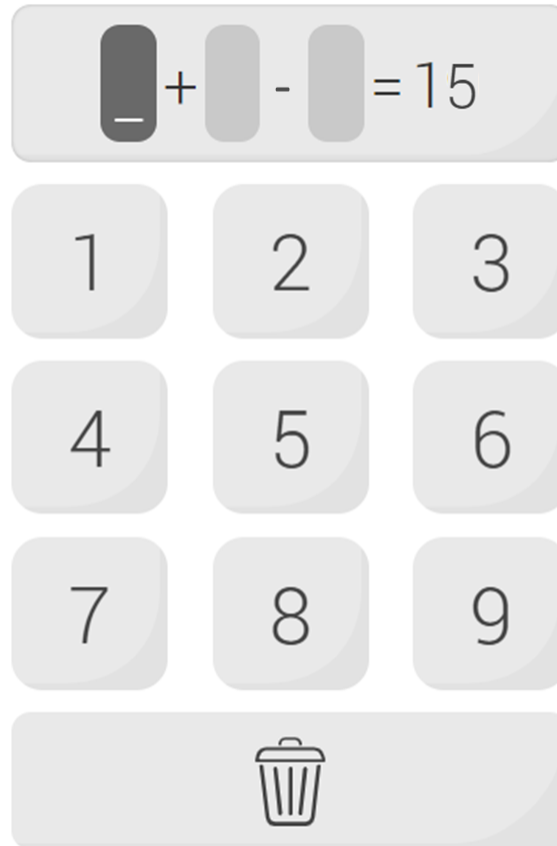
Example 1 - Solution



Answer: 9-2 or 8-1

Rationale: For the first number, you need a number bigger than 7, so that you will be able to subtract a number to get 7 as a result. You can use 9 or 8, and then the respective second number (2 or 1).

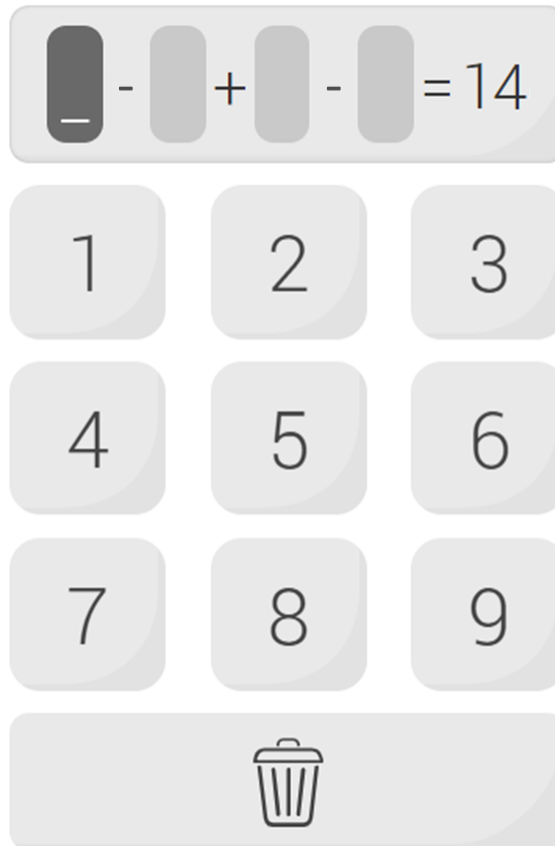
Example 2 - Solution



Answer: $9+7-1$, $9+8-2$, $7+9-1$, $8+9-2$

Rationale: The sum of the first two numbers needs to be greater than 15, so you can subtract one number in the second part of the equation. The only two possible combinations are 9 and 7 or 9 and 8. 8 and 8 is not possible, since each number can only be used once per problem. 9 and 7 sum up to 16, so you need to subtract 1. 9 and 8 sum up to 17, so you need to subtract 2.

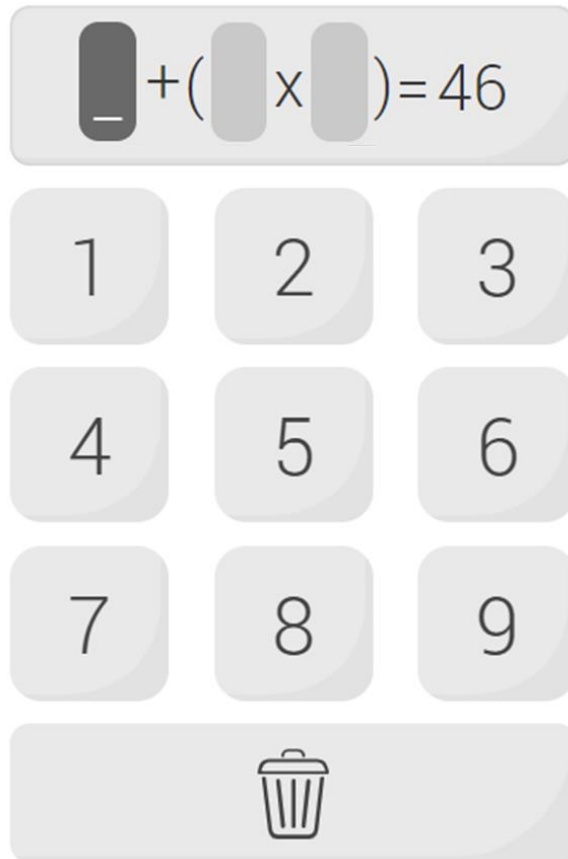
Example 3 - Solution



Answer: 9-1+8-2, 9-2+8-1, 8-1+9-2, 8-2+9-1

Rationale: You are looking for four numbers that when added and have two subtracted will equal 14. If you choose the two smallest numbers for subtraction, 1 and 2, you will need to look for a combination of two numbers that will sum up to 17. There is only one possible solution: 9 and 8.

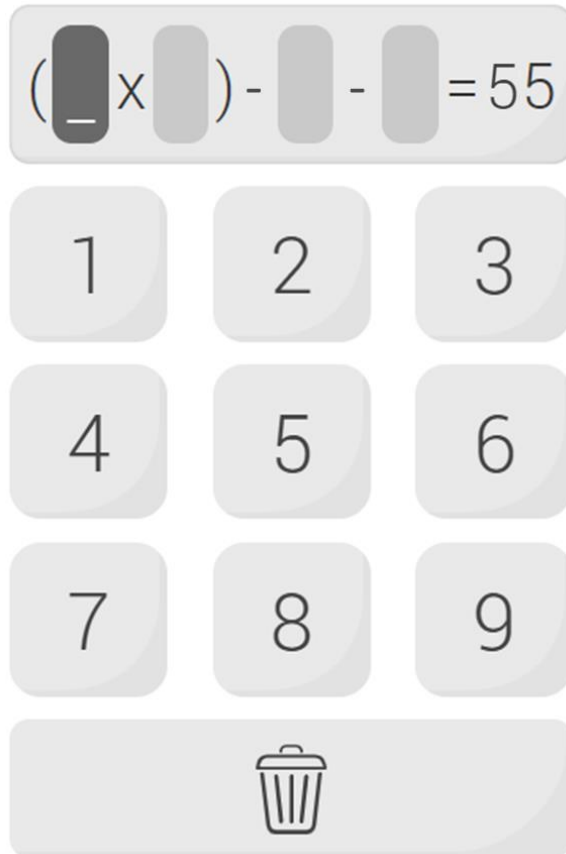
Example 4 - Solution



Answer: $6+(8 \times 5)$, $6+(5 \times 8)$, $4+(6 \times 7)$, $4+(7 \times 6)$, $1+(5 \times 9)$, $1+(9 \times 5)$

Rationale: You are looking for the numbers that when multiplied together in brackets and have one addition will equal 46. Remember you first need to multiply what is in the brackets first e.g. $(8 \times 5) = 40$, and then add the last number e.g. $40+6 = 46$.

Example 5 - Solution



Answer: $(9 \times 7) - 5 - 3$, $(9 \times 7) - 6 - 2$, $(7 \times 9) - 5 - 3$, $(7 \times 9) - 6 - 2$, $(9 \times 7) - 3 - 5$, $(9 \times 7) - 2 - 6$, $(7 \times 9) - 3 - 5$, $(7 \times 9) - 2 - 6$

Rationale: You are looking for two numbers that you can multiply together, then deduct two more numbers, and your result will be 55. First, you need to look for combinations that when multiplied are greater than 55. Possible combinations are 9×8 , 9×7 , and 8×7 . 9×8 equals 72, but with 72 there are no two numbers that will equal 55 when subtracted (since you already used 8 and 9). 8×7 equals 56, and again there are no two numbers that would give back the correct result. 9×7 , however, equals 63. The difference to 55 is 8, so you are looking for two numbers that sum up to 8 such as $6 + 2$ and $5 + 3$ ($7 + 1$ does not work, since you used the 7 in the multiplication already).