MINTFIT HAMBURG

Stack & The MINTFIT Math Test

What is MINTFIT Hamburg and the MINTFIT Math Test?

MINTFIT is a joint project of the universities HafenCity University Hamburg (HCU), Hamburg University of Applied Sciences (HAW), Hamburg University of Technology (TUHH), University Medical Center Hamburg-Eppendorf (UKE) and Universität Hamburg (UHH) together with the Ministry of Science, Research and Equalities (Behörde für Wissenschaft, Forschung und Gleichstellung, BWFG) to support high school students and others interested in STEM degree programmes at a German university.

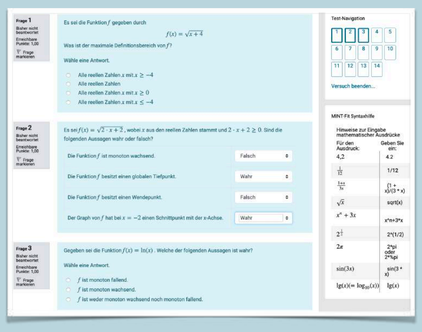
The **MINTFIT Math Test** is a free diagnostic online test which gives its participants the opportunity to check if their math skills are sufficient for a successful start into the first terms of a STEM degree programme.

After finishing the test, participants instantly get a feedback in which subjects of high school mathematics they should still put some efforts before beginning their university studies. Furthermore, two online mathematics bridging courses – the **OMB+** and **viaMINT** – are presented, the recommended chapters in both courses are highlighted. Users can transfer their recommendations automatically to their preferred platform or to both platforms.

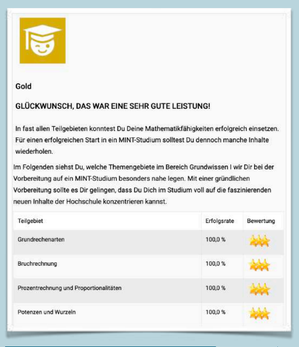
The MINTFIT platform also offers online tests in physics, chemistry and informatics as well as a physics online course. Chemistry and informatics courses will be published by the end of 2020. In 2019, about 30,000 tests were completed at the MINTFIT Hamburg webpage.

You can try it for yourself at **www.mintfit.hamburg!**

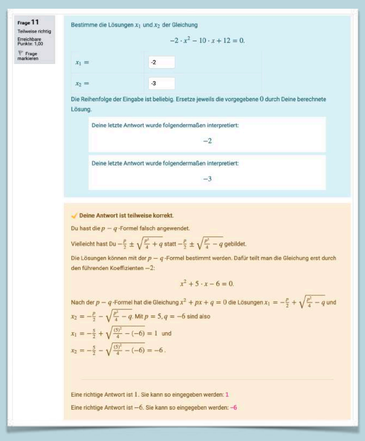
MINTFIT Math Test



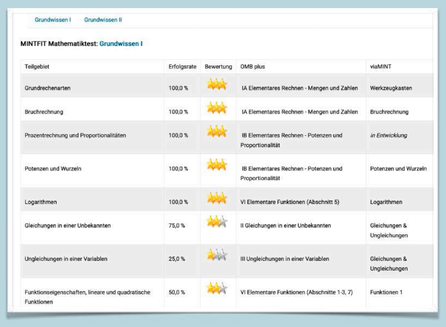
Different question types and syntax table



Feedback: medal and text



Links to learning platforms and optical feedback



Hints to mistakes and standard solution

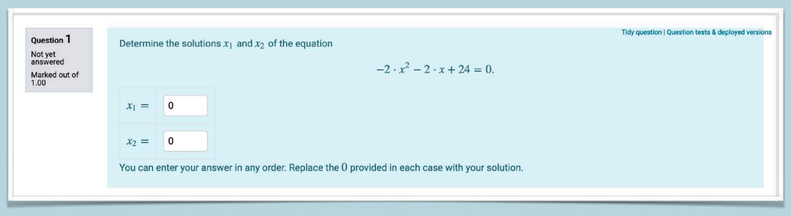
The MINTFIT Math Test consists of 2 subtests with 11 resp. 7 subfields of high school mathematics with 2 questions in each subfield. These are drawn from a question pool with at least 3 questions in it.

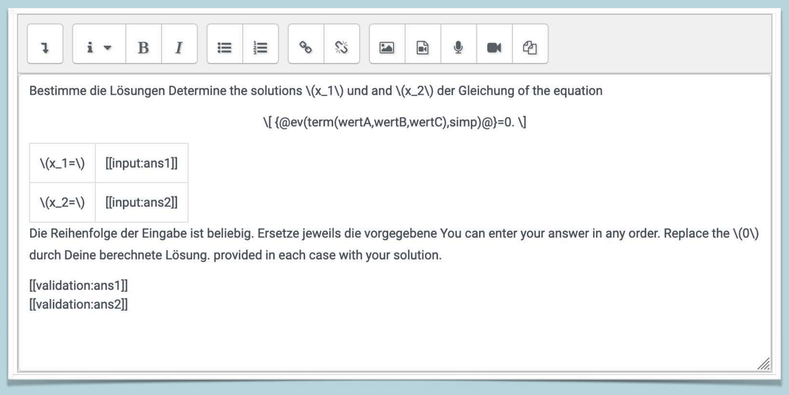
About 50 questions in the question pool currently used are implemented **with Stack.**

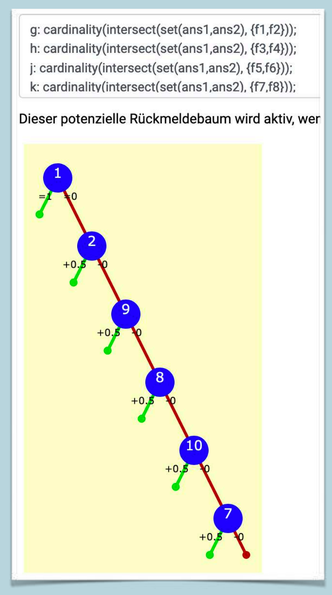
Thus, the test version presented to a participant is with a high probability different from the one presented to fellow students, seat mates etc. This makes the **MINTFIT Math Test usable for a variety of settings:**

- **Bonus points:** Freshmen get the opportunity to collect bonus points for the mathematics exams at the end of the first term at the University of Technology Hamburg (TUHH)
- **Entrance test** for persons without university-entrance diploma (Abitur) for several study degree programmes at the HafenCity Universität Hamburg (HCU)
- **Module requirement** for freshmen of the Geodesy and Geoinformatics degree programme at the HafenCity Universität Hamburg (HCU)

STACK Questions







Backend of a sample Stack question in the MINTFIT Math Test

Stack questions help to diagnose the errors in a student's calculation.

Stack helps to provide partial points for small errors or partially correct answers.

Stack helps to provide many variants of one and the same question.

In this example, 12 variants of the same Stack question are deployed in the MINTFIT Math Test.

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