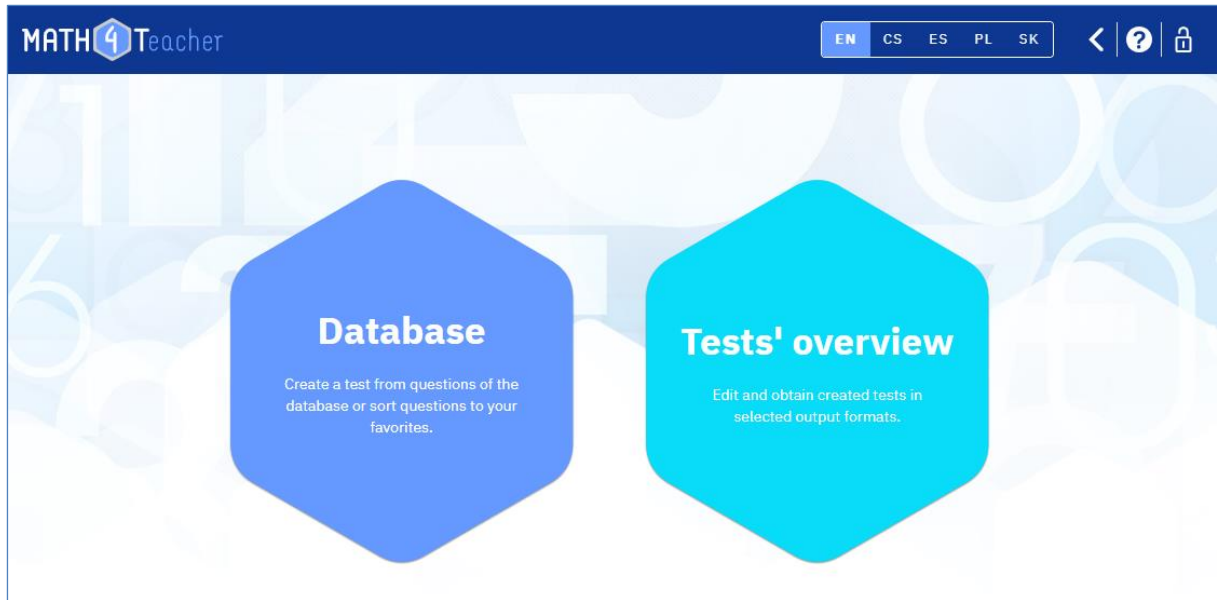


HELP FOR THE APPLICATION MATH4TEACHER NEW

1. Login Instructions



To log in to the app, use the "lock" icon located in the top right corner. If you have not created an account yet, select the "Register" option. After entering your contact email and your chosen login name, you will receive two emails. The second one will contain a link to log in. Please be patient, as it may take even several hours to set up your account.

2. Question Database – Customizing Favorites

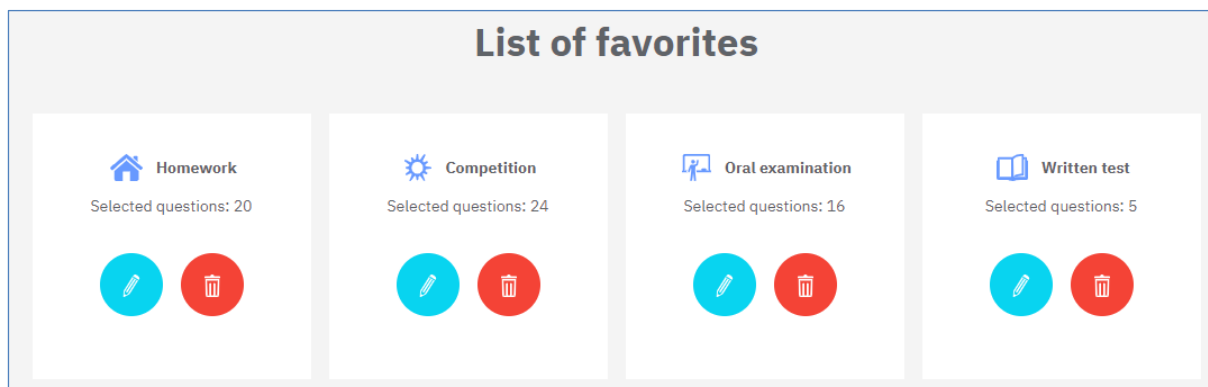
Topic selection

<input checked="" type="checkbox"/> Basics of math	<input checked="" type="checkbox"/> Equations and inequalities
<input type="checkbox"/> Functions	<input checked="" type="checkbox"/> Exponents and logarithms
<input checked="" type="checkbox"/> Trigonometry	<input checked="" type="checkbox"/> Triangle trigonometry
<input checked="" type="checkbox"/> Geometry	<input checked="" type="checkbox"/> Analytic geometry
<input type="checkbox"/> Complex numbers	<input type="checkbox"/> Combinatorics, probability and statistics
<input type="checkbox"/> Sequences and series	<input checked="" type="checkbox"/> Differential and integral calculus

You can utilize the "Settings" (represented by the "cog" icon in the top menu) to set up the topics you wish to use and designate your favorite questions.

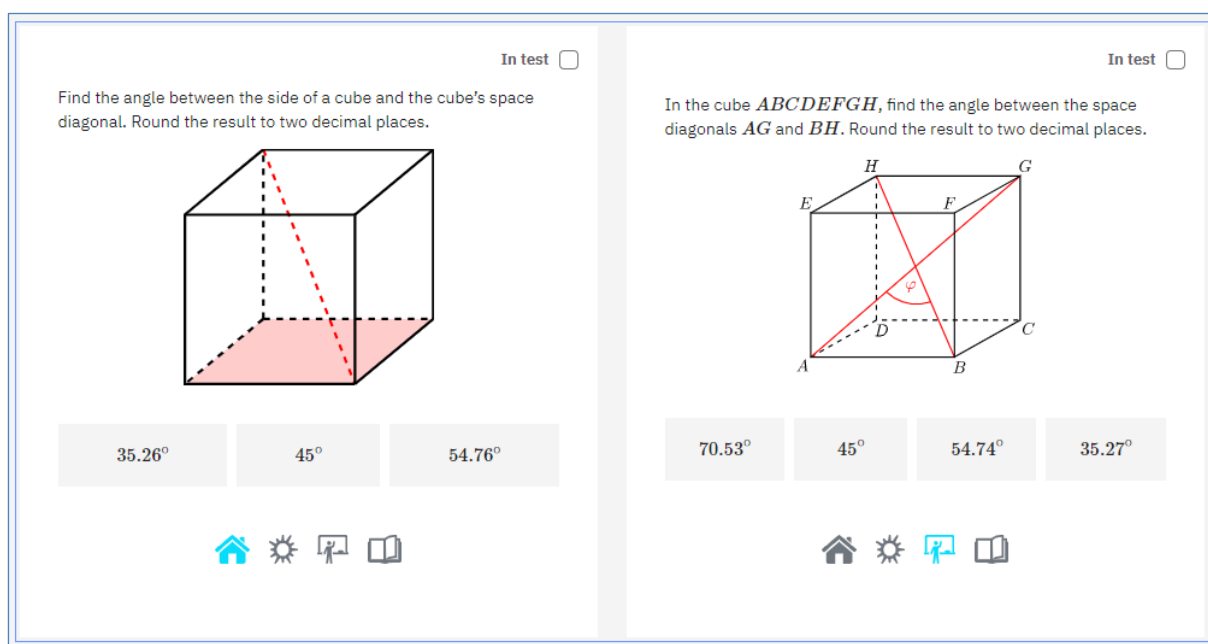
You have the option to choose the topics you intend to use soon (e.g., within a given year). Only these topics will then be displayed in the drop-down menu of the database, enhancing clarity, and speeding up your workflow. The settings can be changed at any time.

Next, you will set up folders for your favorite questions. The database contains 5,900 questions, which vary in multiple aspects such as difficulty, calculation length, drill practice, questions requiring creative thinking, and applications to physics, among others. Consequently, their inclusion in lessons (e.g., test, homework, independent work, competition, etc.) will also vary.



Before working with the database for the first time, we therefore recommend devising a system for sorting questions and setting up "My Favorites". You have the option to create up to 10 folders for your favorite questions. For each folder of "Favorites," provide a name and select a unique icon. You can choose names based on their purpose (e.g., Homework, Seminar, Test, Five Minutes, Competition), difficulty level (Easy, Hard), or any other method you prefer.

These settings will remain effective for all subsequent logins and interactions with the database. Naturally, you can modify these settings whenever necessary.



Once you have set the names and icons of your folders of "Favorites", these icons will appear alongside each question in the database. By clicking on the icon, you will save the question to the respective folder, as shown in the picture. These "Favorites" can also be employed to filter when creating tests.

3. Question Database – Filters Single/Twin, Easy

In the "Database" section, you can view questions, save them to your folders of "Favorites," and select questions for a test. In the "Tests' Overview" section, you manage your previously created tests and generate various test formats (T4U test, PDF test, interactive PDF test).

The first step to create a new test is to select questions from the database.

The screenshot displays the Question Database interface. At the top, there are six filter dropdowns: Topic (Analytic geometry), Subtopic (Analytic geometry in a plane), Part (I), Single/Twin (Twin Quest...), Easy (All), and Favorites (All). Below these filters, it says "Questions in test: 0" and has "Create test" and "Clear test" buttons. A navigation bar shows "Previous", "1", "2", "3", "4", and "Next". The main area contains two question cards. Each card has a yellow "e" icon in the top left corner and an "In test" checkbox in the top right. The question text is: "In the following list identify a vector having the same direction as the line passing through the points A and B ." The first card has $A = [2; 1]$ and $B = [3; 2]$, with options $(1; 1)$, $(-1; 1)$, $(5; 3)$, and $(3; 5)$. The second card has $A = [4; 1]$ and $B = [3; 2]$, with options $(-1; 1)$, $(1; 1)$, $(7; 3)$, and $(5; 5)$. At the bottom of each card are icons for home, settings, a person at a desk, and a book.

Questions can be filtered by topics, subtopics, question types, and "Favorites" you have set:

- The entire secondary school curriculum is divided into 12 topics, 56 subtopics and 160 parts.
- Twin questions are those that are very similar in both content and difficulty and can be used to create two variants of the test (A and B). In the database, twin questions are presented in a shared frame (one frame for two questions). Single questions are those for which there is no corresponding twin.
- Easy questions are questions that can be solved mentally, i.e., without pen and paper. In the database, such questions are marked with a yellow "e" in the upper left corner of the question frame. The database now contains 2,000 Easy questions.

4. Question Database – Test Creation

Questions in test: 2

Create test

Clear test

Previous

1

2

3

4

Next

e

In test ☒

In the following list identify a vector having the same direction as the line passing through the points A and B .

$A = [2; 1], \quad B = [3; 2]$

(1; 1)

(-1; 1)

(5; 3)

(3; 5)

e

In test ☐

In the following list identify a vector having the same direction as the line passing through the points A and B .

$A = [4; 1], \quad B = [3; 2]$

(-1; 1)

(1; 1)

(7; 3)

(5; 5)

For each question, there is a "To test" checkbox located at the top right. Check it to select the question for the test. Once you have selected the questions, use the blue "Create test" button to proceed to the test setup form. Here, you can view the selected questions, remove some of them, add new ones, and provide a name for the test. The created test (test definition) is saved in the test list. (You can access the test list at any time from the home page by clicking on "Tests' Overview" or from the top menu by clicking on the "hexagons" icon. The hexagons icon serves as a quick switch between the "Database" and "Tests' Overview").

If you are creating two test variants (A and B), then for Twin questions (they share one frame), check the "To test" box for only one question of the pair. The question you check will be included in variant A, while the other question from the pair will be included in variant B. If you tick both questions, then both questions will be included in both variants. If you select a question that does not have a twin (Single question), then this question will be included in both variants.

5. Overview of Tests and their Outputs

In the "Tests' Overview" section, you can manage your previously created tests and generate various test outputs (T4U test, PDF test, interactive PDF test).

Filter

Enter test's title

Tests

Outputs::

T4U

PDF

I-PDF

Title	Changed	Outputs:	
Volumes and surfaces	3. 11. 2022	T4U	PDF I-PDF
Properties of functions - comp...	3. 11. 2022	T4U	PDF I-PDF

For each test, you can view the name, the date of the last change and the available output options. Each test can be edited (pencil icon), duplicated (paper sheet icon), or deleted (trash can icon).

It is quite important to choose an appropriate naming strategy for your tests. For instance, you can use a name that combines the topic name and its purpose (e.g., “Linear Function – Hw”). This makes it

easier to manage a large number of stored tests as you can filter them by names or name segments. For example, you can easily filter and find all tests with "function" or "Hw" in the name.

Once you have created a test, you can select one of the following output formats:

- T4U - HTML test for the new Test4U app
- PDF - printable test in PDF format
- I-PDF - interactive test in PDF format

6. Output “T4U” – Test for Test4U App

Filter: Enter test's title

Tests

Outputs:: T4U PDF I-PDF

Title	Changed	Outputs:
Volumes and surfaces	3. 11. 2022	T4U PDF I-PDF
Properties of functions - comp...	3. 11. 2022	T4U PDF I-PDF

Create T4U test

Items per page: 10 1 - 2 of 2

In the "Tests' Overview" section, clicking the "T4U" button will take you to the T4U test setup form. Here, you can configure various aspects of the test, including its name, start and end times, time limit for completion, the ability to scroll through the test while answering questions, question permutation, and the option to create two test variants.

T4U test's title * Properties of functions - competitio X

Time limit * 10

Start:

Start date * 17. 11. 2022

Start hour * 09

Start minute * 10

End:

End date * 17. 11. 2022

End hour * 09




End minute * 25

☐ Allow browsing through the test. ☐ Create two test variants A and B. ☒ Permute the questions.

If you enable the permutation option, each student will get a test with the same questions but in a different order. Order of answers within questions is automatically randomized.

After saving your settings, you will be redirected to the T4U test list, where you will see a six-digit access code. Only one code is generated, even if you choose to create two test variants (A and B). Students will only encounter the variant selection prompt after logging in with their unique access code.

You provide this access code to your students, and they then use the Test4U app and the code to access and complete the test. Once the students finish the test, the results are sent back to your Math4Teacher app.

Filter		Tests	Outputs::	T4U	PDF	I-PDF
functions						
Title	Start	End	Time	Code		
Properties of functions - comp...	17. 11. 2022 9:10	17. 11. 2022 9:25	10	aKHYZW		
						
Items per page: 10 1 - 1 of 1 < >						

Once students have completed the test, you can promptly view the results. Click on the "two envelopes" icon to access a summary of student results. From there, click on the icon enclosed in a circle at the top right to switch to answer statistics for each question. The images below provide a preview of student results and success rates for each question. You can see how many students selected each answer or did not respond at all. This allows you to promptly identify areas with the most errors and take necessary actions.

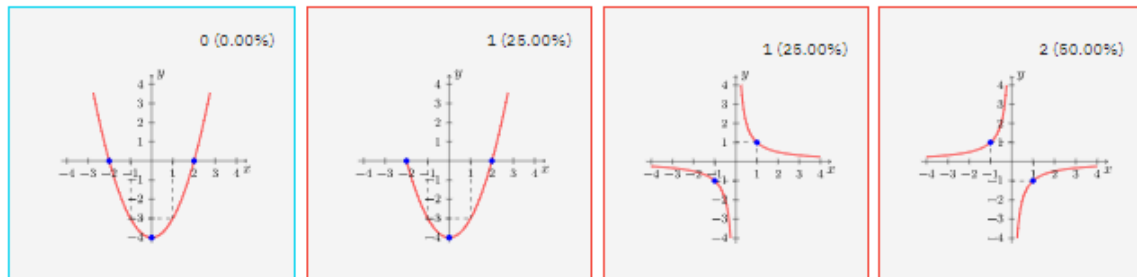
Name	Variant	Score	1 (14.29%)	2 (57.14%)	3 (85.71%)
John	B	2/3 (66.67%)	✗	✓	✓
Alice	A	2/3 (66.67%)	✗	✓	✓
Tom	A	2/3 (66.67%)	✗	✓	✓
Jack	B	1/3 (33.33%)	✗	✗	✓
Kate	A	0/3 (0.00%)	✗	✗	✗
Peter	A	1/3 (33.33%)	✗	✗	✓
Mary	B	3/3 (100.00%)	✓	✓	✓
Items per page: 10 1 - 7 of 7 < >					

In the student list, you have the option to sort students by name, results, or variant (A, B).

Question no. 1

✓ 0 (0.00%) ✗ 4 (100.00%)

Identify a possible graph of an even function.

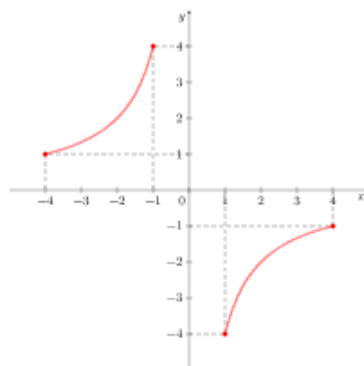


Not answered 0 (0.00%)

Question no. 2

✓ 2 (50.00%) ✗ 2 (50.00%)

The function f is given by the graph. Identify which of the following statements is true.



<p>2 (50.00%)</p> <p>The function f is neither increasing nor decreasing.</p>	<p>1 (25.00%)</p> <p>The function f is increasing.</p>	<p>0 (0.00%)</p> <p>The function f is non-decreasing.</p>
<p>0 (0.00%)</p> <p>The function f is increasing in the interval $[-4; 1]$.</p>		<p>1 (25.00%)</p> <p>Not answered</p>

In the question-by-question results statistics, you can toggle between the results for variant A and variant B.

Test4U App

Students can access the Test4U application from the main Math4U portal page (math4u.vsb.cz) or from the top menu by selecting "TEST4U".

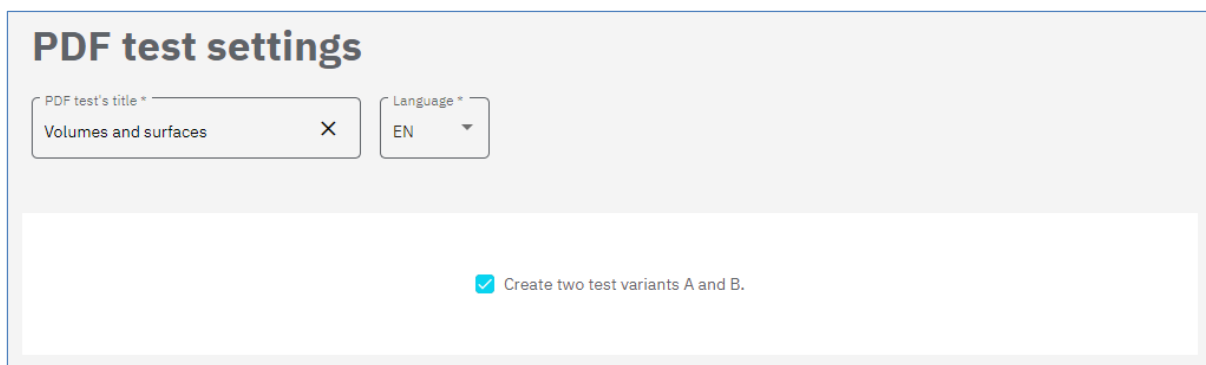
The screenshot shows the Test4U application interface. At the top is a dark blue header with the 'TEST4U' logo on the left and a language selection menu on the right containing 'EN', 'CS', 'ES', 'PL', 'SK', and a help icon. The main content area has a light blue background with a large, faint number '4' and a stylized figure. The heading 'Welcome to the Test4U' is centered. Below it are two input fields: 'Name *' with the placeholder 'Enter your name' and 'Test's code *' with the placeholder 'Enter a code of the test'. An 'Enter' button is positioned below the second field.

Students enter their names or nicknames (as per the teacher's preference) along with the test access code. The code must be entered accurately, distinguishing between upper- and lower-case letters. After entering these details, students will see the test parameters, including the test name, the timeframe within which they can take the test, the number of questions, and the time allotted for completion. Once the test is activated, the countdown timer begins. Students navigate through the questions and select their answers. When they've completed all the questions or if the time limit has elapsed, the test is submitted.

After the test expires, students can use the same code to access the test preview. However, they cannot complete or submit the test at this point; they can only view the correct answers.

7. Output "PDF" – Printable Test

In the list of tests, clicking the "PDF" button will initiate a request to generate a printable PDF test in the chosen language. You can specify the test name, language, and choose to create two test variants, A and B.

The screenshot shows the 'PDF test settings' form. It has a light blue header with the title 'PDF test settings'. Below the title are two input fields: 'PDF test's title *' with the text 'Volumes and surfaces' and a close button 'X', and 'Language *' with a dropdown menu showing 'EN'. At the bottom of the form is a checkbox labeled 'Create two test variants A and B.' which is checked.

After saving these settings you will be directed to your PDF test list. The generation of your test may sometimes take a few minutes. Click "Generate", and then "Check availability" to get created PDF test. Once the test is ready, the "Open" button will appear.

Filter

Enter test's title

Tests

Outputs::

T4U

PDF

I-PDF

Title	Language	Link	
Volumes and surfaces - A	EN	Open	
Volumes and surfaces - B	EN	Open	
Properties of functions - comp...	ES	Check availability	Pending
Properties of functions - comp...	ES	Generate	

Items per page: 10
1 - 4 of 4

If you need the same test in another language, click on "PDF" in the test list once more, select the desired language, and this will add another entry to the list of PDF tests.

Please note that PDF tests will not be stored on the server to conserve space. However, they can be re-generated at any time with a single click.

8. Output “I-PDF” – Interactive Test

In the list of tests, pressing the "I-PDF" button will trigger a request to create an interactive test in specified, language. You can set the test name, language, and choose to create two test variants, A and B.

Interactive-PDF test's title *

Volumes and surfaces

×

Language *

EN

▼

☒ Create two test variants A and B.
☒ Permute the questions.

Upon saving these settings, you will be directed to your I-PDF test list. The generation of your test may sometimes take a few minutes. Click "Generate," and then "Check availability" to obtain the created I-PDF test. Once the test is ready, the "Open" button will become visible.

Filter

Enter test's title

Tests

Outputs::

T4U

PDF

I-PDF

Title	Language	Link	
Volumes and surfaces - A	EN	Open	
Volumes and surfaces - B	EN	Open	
Properties of functions - comp...	CS	Check availability	Pending
Properties of functions - comp...	CS	Generate	

Items per page: 10

1 - 4 of 4

If you want the same test in another language, once again, click on "I-PDF" in the test list, select the desired language, and this will add another row to the list of I-PDF tests.

Please note that the tests will not be stored on the server to conserve space. However, they can be re-generated at any time with a single click.

To open the interactive PDF tests, you will need to use Adobe Reader (freely downloadable). Tests opened in a browser or other programs will not function correctly.