

ConTest (version 3.0) Manual



Version: September 2019

This manual is developed for TU Delft instructors who want to use ConTest.

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What is ConTest?

ConTest is a software based solution to facilitate the processing of paper-based exams using specific multiple choice answer sheets.

Overview of the steps in the ConTest process:

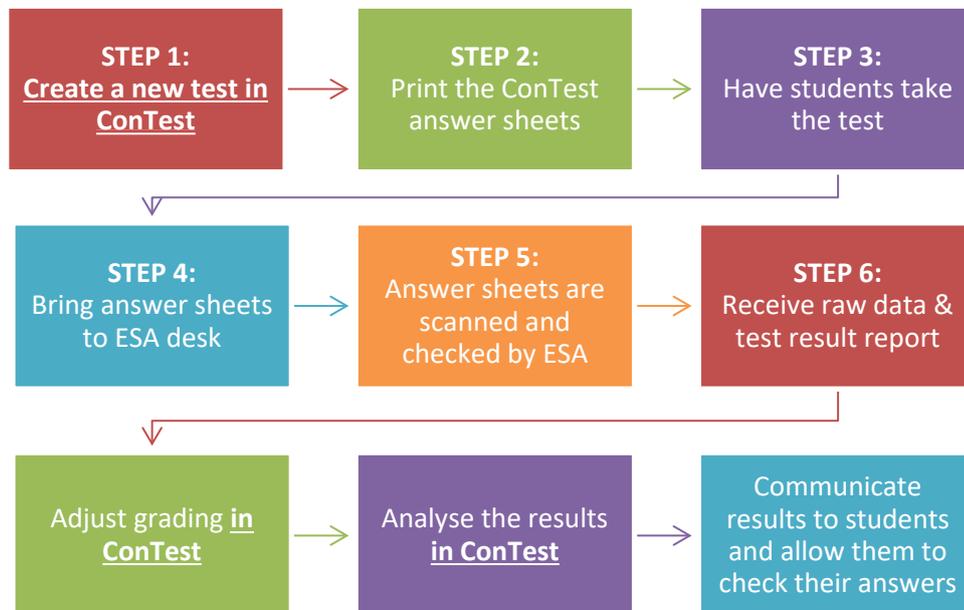


Figure 1. Overview of the process. Underlined parts are only applicable for ConTest account holders.

Do you need a ConTest account?

YES: If you want to use ConTest as a tool to grade and analyse your test results.

Mail to fab-contest@tudelft.nl to receive a ConTest account and add the following information:

- Programme / Opleiding
- Course code / Vakcode
- Title course / Titel vak
- Name instructor / Naam docent

⇒ **You will have to create your new tests in ConTest yourself.**

⇒ **You will have to use a *keyform* (an answer sheet that has all the correct answers)**

OR **insert the correct answers in the new test**

NO: If you only want to use the ConTest outcome (data file) of your test and analyse it in a different application than ConTest you will not need a ConTest account.

⇒ **The ESA-desk will create your new tests.**

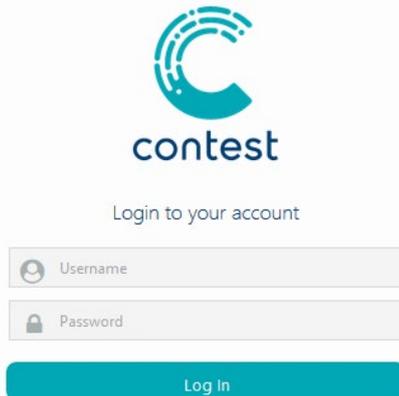
⇒ **You must use a *keyform* for your tests.**

Step 1: Create a new test in ConTest

- ⇒ This step is only for teachers with a ConTest account.
- ⇒ If you don't have (or want) a ConTest account you need to use a keyform (sheet with correct answers). You can skip step 1 and go to [step 2](#).

How to create a new test

- Log in to **ConTest**: <https://contest-os.tudelft.nl> with your Net ID and password.

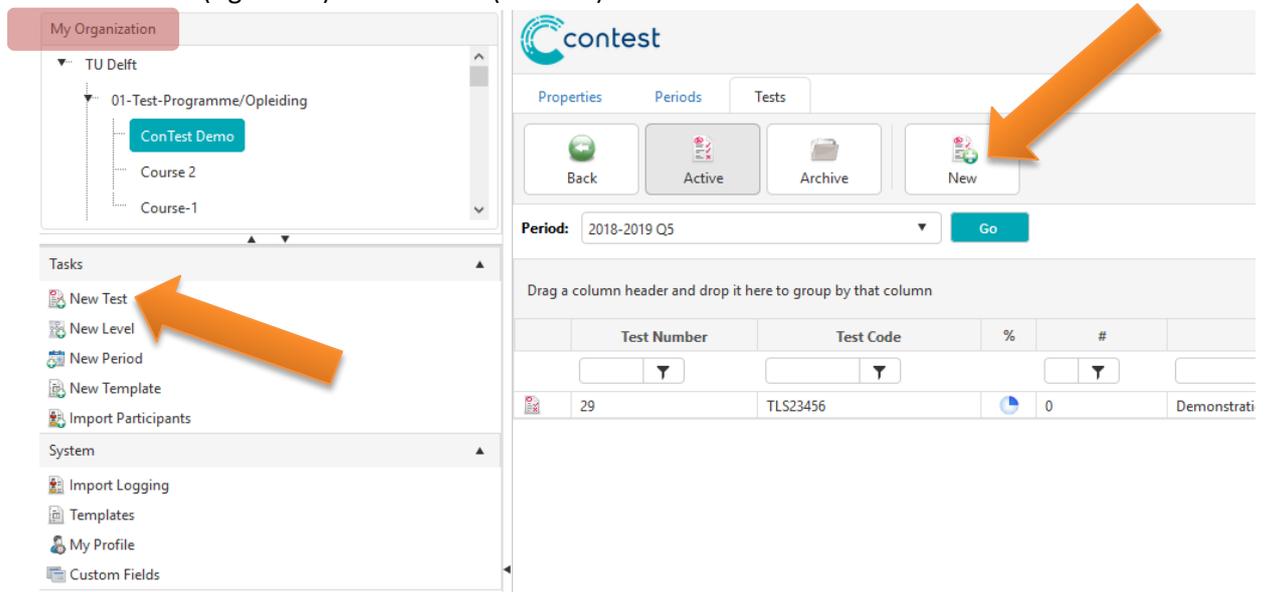


The image shows the ConTest login interface. At the top is the ConTest logo, a stylized 'C' made of blue and teal arcs. Below the logo is the text 'contest' in a lowercase, sans-serif font. Underneath is the text 'Login to your account'. There are two input fields: 'Username' with a person icon and 'Password' with a lock icon. Below these fields is a teal 'Log In' button.

If you are working off Campus please use weblgin to navigate to ConTest:

<https://weblgin.tudelft.nl/vpn/index.html>

- Select your *programme* and *course* in the organization tree (under “My Organization”)
- Click on **New** (right side) or **New Test** (left side)



The image shows the ConTest user interface. On the left is a sidebar with a 'My Organization' section. Under 'TU Delft', there is a tree view showing '01-Test-Programme/Opleiding' with sub-items 'ConTest Demo', 'Course 2', and 'Course-1'. Below this is a 'Tasks' section with options: 'New Test', 'New Level', 'New Period', 'New Template', 'Import Participants', 'System', 'Import Logging', 'Templates', 'My Profile', and 'Custom Fields'. An orange arrow points to 'New Test'. On the right is the main content area. At the top is the ConTest logo and tabs for 'Properties', 'Periods', and 'Tests'. Below the tabs are buttons for 'Back', 'Active', 'Archive', and 'New'. An orange arrow points to the 'New' button. Below these buttons is a 'Period:' dropdown menu set to '2018-2019 Q5' and a 'Go' button. Below that is a table with columns: 'Test Number', 'Test Code', '%', '#', and 'Demonstrati'. The table has one row with values: 29, TLS23456, 0, and Demonstrati. An orange arrow points to the 'New' button in the top right.

When you click on **New** or **New Test** you will have to fill out 5 steps:

Step 1: Enter a Test code, description and date for the test

- Your **Test code** is your **Course Code!!**
- Description: fill in what you like
- Click on **Next**.

Step 1: Enter a description and date for the test

Test code: AA1122

Description: Tussentoets - deel 1

Test date: 26/09/2019

Next

Step 2: Select a level

- Check whether your test is indeed in the correct programme and course.
- Click on **Next**

Step 2: Select a level

Level

TU Delft

01-Test-Programme/Opleiding

ConTest Demo

Course 2

Course-1

Step 3: Select a period

- Select the period in which your test takes place (Q5 is the period in the summer break, with the re-sits).
- Click on **Next**

Step 3: Select a period

Period

2019-2020 Q1

- 2018-2019 Q1
- 2018-2019 Q2
- 2018-2019 Q3
- 2018-2019 Q4
- 2018-2019 Q5
- 2019-2020 Q1

Step 4: Select a template

Select the 'template' (answer sheet) that you need:

- An answer sheet with **2 choices** (True-False) with a maximum of 100 questions
- An answer sheet with **4 choices** (A,B,C,D) with a maximum of 90 questions
- An answer sheet with **8 choices** (A,B,C,D,E,F,G,H) with a maximum of 60 questions
- An answer sheet with **4 shuffled choices** (C,B,D,A) with a maximum of 90 questions

Step 4: Select a template

	Name	Form Id	Max. Questions	Max. Answers	Max. Versions
<input type="checkbox"/>	4-choice_shuffle-A	13140	90	4	1
<input type="checkbox"/>	4-choice_shuffle-B (don't select this one, select shuffle-A)	6262	90	4	1
<input type="checkbox"/>	4-choice_shuffle-C (don't select this one, select shuffle-A)	40580	90	4	1
<input type="checkbox"/>	2-choice-100questions	14312	100	2	4
<input checked="" type="checkbox"/>	4-choice-90questions	49306	90	4	4
<input type="checkbox"/>	4-choice_shuffle-D (don't select this one, select shuffle-A)	49422	90	4	1
<input type="checkbox"/>	8-choice_60questions	17386	60	8	4

- Click on **Next**

Step 5: Questions and answers

- Number of questions: how many questions do you use in your exam? In this case: **40**
- Maximum answers: this number corresponds with your answer sheet. In this case **4**
- Question type: **always 1**
- Versions: **1** (see for more info on Versions, p. 20)
- Click on **Finish**

Step 5: Questions and answers

Number of questions	<input type="text" value="40"/>
Maximum answers	<input type="text" value="4"/>
Question type	<input type="text" value="1"/>
(Un)check all Abstentions for t1, 3 and 4 questions	<input type="checkbox"/>
Versions	<input type="text" value="1"/>

After completing the 5 steps, the **Properties TAB** of this new test will look like this:



Properties | Scoring | Grading | Notes | Attachments

Back | Edit | Delete | Copy | Import

Test number	375
Test code	AA1122
Description	Tussentoets - deel 1
Test date	26/09/2019
Level	ConTest Demo
Period	2019-2020 Q1
Template	4-choice-90questions
Number of questions	40
Maximum answers	4
Versions	1
Item groups	0
Competences	0

Meta data completed
Data available
Open for data collection

For each test, ConTest informs you about the stage and status the test is in. This is done by using both an icon and a description text.

Step 2: Print the answer sheets



Important

- It is NOT possible to use multiple answers on the answer sheets; **only ONE answer per question** is possible to scan
- Answer sheets must be printed, not copied.
- Do **not** scale the print, keep it 100%
- Do **not** modify the answer sheet, if you do we cannot guarantee the forms will scan properly.
- Always use the latest version of the answer sheets here:
<https://brightspace-support.tudelft.nl/contest/>

ConTest answer sheets:

- True/False (2-choice) Answer Sheet with 100 questions
- 4-choice Answer Sheet with 90 questions
- 8-choice Answer Sheet with 60 questions*

** The 8 choice answer sheet can also be used for 5, 6 or 7 choices*

ConTest answer sheets with shuffled answers:

- 4-choice shuffle A- Answer Sheet with 90 questions**
- 4-choice shuffle B – Answer Sheet with 90 questions
- 4-choice shuffle C- Answer Sheet with 90 questions
- 4-choice shuffle D – Answer Sheet with 90 questions

**** Always use 4-choice shuffle A for your key form!!**

Step 3: Having students take the test

Please instruct your students to – besides filling in the answers – also to fill out all red sections on the answer sheet in a clear and proper way. This way it is easier for the ESA employee to check, see Step 5.



49306

Answer Sheet

(4-choice - 90 questions)



Name:

Course/exam:

Course code:

Date exam:

Version: 1 2 3 4

You can find the version number on your exam.
If you don't have a version number: mark Version 1

EXAMPLE how to fill in your student number:

	0	1	2	3	4	5	6
0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
7	<input type="checkbox"/>						
8	<input type="checkbox"/>						
9	<input type="checkbox"/>						

Student Number:

<input type="checkbox"/>							
0	<input type="checkbox"/>						
1	<input type="checkbox"/>						
2	<input type="checkbox"/>						
3	<input type="checkbox"/>						
4	<input type="checkbox"/>						
5	<input type="checkbox"/>						
6	<input type="checkbox"/>						
7	<input type="checkbox"/>						
8	<input type="checkbox"/>						
9	<input type="checkbox"/>						

Instructions:

1. Use a black or blue pen to fill in this answer sheet.
2. Don't fold or crush the answer sheet.
3. When you change your answer: cross out the incorrect answer.
4. Answers should be darkened completely and properly.

Wrong methods:

<input checked="" type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input type="checkbox"/> B	<input checked="" type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input checked="" type="checkbox"/> D

Right method:

<input checked="" type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input type="checkbox"/> B	<input checked="" type="checkbox"/> C	<input type="checkbox"/> D
<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input checked="" type="checkbox"/> D

Step 4: Bring your answer sheets to the ESA-desk

Once you have collected the completed tests you can bring them to the ESA-desk.

- When handing them in, be sure to include your **keyform**, if using one. *A keyform is an answer sheet that has all the correct answers prefilled.*
- Furthermore, please fill out the **intake form** you will receive from the colleagues at the ESA-desk so they know what to do for your test.

Step 5: The answer sheets are scanned and checked by ESA

After receiving your batch, our ESA colleagues will scan your forms as soon as possible.

The scanning software is triggered when:

1. The student number is incorrect or not filled in
2. The version number is incorrect or not filled in
3. Two answers are given for one question

When this happens the corrector has to manually correct the student number or version number.

In case of two answers the corrector chooses the most filled in answer. If this is not clear the corrector selects NO answer which leaves the question “open”.

Step 6: Receive raw data & test result report

Within 3 working days you will receive a mail from the ConTest email address that will include:

- 1 standard report (in Excel)
- 1 standard data file (in CSV)
- Explanatory notes for the test result analysis (PDF)

*If you **have a ConTest Account** you will be notified per email that the data is accessible.*

Check your student’s results for open answers

This step needs to be done by the teacher as “open” answers can be the result of Step 5.

The easiest way to check if there are open questions is in the **Report file** > tab: **Grading Report**

			Score	
	Open		Bonus	Tot.
✓	2	10.00		10.00
✓	3	10.00		10.00
✓	1	11.00		11.00
✓	2	13.00		13.00
✓	1	11.00		11.00
✓	1	11.00		11.00
✓	1	8.00		8.00
✓	1	16.00		16.00
✓	1	14.00		14.00
✓	1	10.00		10.00
✓	1	14.00		14.00
✓	1	13.00		13.00
✓	1	15.00		15.00
✓	1	11.00		11.00
✓	1	17.00		17.00
✓	1	15.00		15.00
✓	5	10.00		10.00
✓	1	14.00		14.00
✓	1	17.00		17.00
✓	1	9.00		9.00

If you have a ConTest account you can check the student answer sheet in the **Data** tab:

The screenshot shows the ConTest interface with the 'Data' tab selected. The interface includes a navigation bar with tabs for Properties, Scoring, Grading, Data, Notes, Reports, and Attachments. Below this are buttons for Back, Clear Data, Export, Participants, Import, and Load Data. There are search filters for Participant number, Version, Valid/invalid answer forms, Enabled/disabled answer forms, and Maximum results. A table below shows a list of records with columns for Enabled, Participant, Form Id, Batch, PgNo, Received, Version, and 20 question items (1-20). An orange arrow points to a green checkmark icon in the 'Enabled' column of the second row.

<input type="checkbox"/>	Enabled	Participant	Form Id	Batch	PgNo	Received	Version	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
<input type="checkbox"/>		0000000	49306	103	0	25-09-2018	1	B	B	A	C	D	C	A	C	A	D	C	C	B	B	B	B	A	C	C	D	
<input type="checkbox"/>		██████████	49306	103	1	25-09-2018	1	B	A	A	A	D	C	A	C	D	C	C	B	A	B	A	B	A	B	C	C	D

Click on the icon to see the scan and there you can verify the answer.

If you don't have a ConTest account you will have to manually go through your batch of forms to verify the answer.

Step 7: Analyse the results in ConTest *OR* in another application

- In case you have an account in ConTest, you can analyse the results in ConTest

In other cases,

- You can analyse the test result analysis in the file that the ESA desk sent to you, or in another application(s).

Scoring: indicate the correct answers

'Scoring' is the step in which you assign points to all possible answers for every question in the test. Under the 'scoring' tab, you indicate the correct answer per question.



When using a keyform, the scoring will be done automatically in the scanning process.

Scoring Tab:

Properties
⚠ Scoring
Grading
Notes
Attachments

Back
Edit

Default points good answer	1	0: No scoring 1: Multiple choice with single correct answer option 2: Essay question 3: Multiple choice with composite correct answer option 4: Multiple choice with composite correct answer option (revised) 5: Multiple choice with incremental score per answer option 6: Multiple choice with custom scoring
Default points false answer	0	
Default points abstention	0	
Default points empty answer	0	
Default question type	1	
(Un)check all Abstentions for t1, 3 and 4 questions	✓	
Calculate false answer scoring when abstention is used (t1 questions)	✓	
Reporting - Abstention option within range of answer options	✗	
Reporting - No. of options known for calculating the chance score (t3 questions)	✗	

No.	Exclude	Type	Options	Abst.	Abst.Opt.	A	B	C	D	Good	False	Abst.	Empty	Min. Score	Max. Score	Formula
⚠ 1		1	4							1	0	0	0	0	0	
⚠ 2		1	4							1	0	0	0	0	0	
⚠ 3		1	4							1	0	0	0	0	0	
⚠ 4		1	4							1	0	0	0	0	0	
⚠ 5		1	4							1	0	0	0	0	0	
⚠ 6		1	4							1	0	0	0	0	0	
⚠ 7		1	4							1	0	0	0	0	0	
⚠ 8		1	4							1	0	0	0	0	0	
⚠ 9		1	4							1	0	0	0	0	0	
⚠ 10		1	4							1	0	0	0	0	0	

Scoring Tab after clicking on Edit button:

Scoring

Overview of the question types

Default points good answer:

Default points false answer:

Default points abstention:

Default points empty answer:

Default question type:

(Un)check all Abstentions for t1, 3 and 4 questions:

Calculate false answer scoring when abstention is used (t1 questions):

Reporting - Abstention option within range of answer options:

Reporting - No. of options known for calculating the chance score (t3 questions):

0: No scoring

1: Multiple choice with single correct answer option

2: Essay question

3: Multiple choice with composite correct answer option

4: Multiple choice with composite correct answer option (revised)

5: Multiple choice with incremental score per answer option

6: Multiple choice with custom scoring

No.	Exclude	Type	Options	Abst.	Abst.Opt.	A	B	C	D	Good	False	Abst.	Empty	Min. Score	Max. Score	Formula
1	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
2	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
3	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
4	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
5	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
6	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
7	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
8	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
9	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	
10	<input type="checkbox"/>	1	4	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	0	0	0	0	

- Now you can edit the type of question and select the right answer(s).
Only change the type of question from 1 to 6 after the test result analysis (questions of type 6 will not be analysed, otherwise)!

Meaning exclamation mark:



Be aware that as long as a Tab still shows the exclamation mark you have not completed the required steps yet. Every time you complete a Tab, the exclamation mark will disappear.

Properties
⚠ Scoring
Grading
Notes
Attachments

Question Types and scoring

ConTest supports **6 types** of questions.

However, only the single selection options are supported at TU Delft.

Type 0: No scoring

You could use this type to ask for feedback from your students. Example:

How hard did you find the questions on topic X?

- A. much more difficult than I expected
- B. more difficult than I expected
- C. easier than I expected;
- D. much easier than I expected;

Type 1: Multiple choice with single correct answer option

The single option question type is the most frequently used question.

What is the largest province of the Netherlands?

- A. Drenthe
- B. Gelderland
- C. Friesland
- D. Zwolle

For the question that is displayed here, students get 1 point if they answer 'B'. In any other cases, they get 0 points.

Type 2, 3, 4, and 5

These types are not available for the following reasons:

- **Type 2:** Essay question (open questions): It is not yet user friendly enough to enter data in Contest (chance of data loss), or to import data (data format for exporting is very different from that for importing). If you have an exam with a combination of open questions and closed questions, you are advised to calculate two grades (one for each question types) and take a weighted average of the two.
- **Type 3, 4, and 5:** Multiple choices with multiple answers possible per question: This is not possible with the current answer sheets.

Type 6: Multiple choice with custom scoring

Question type 6 will not be used for the test result analysis. Therefore, always start with question type 1, run the test result analysis (tab 'reports') and only then change the question types to type 6.

Partial grading

5. How many bachelor students were registered at TU Delft in 2017?

- A. 5,156
- B. 10,946
- C. 12,384
- D. 101,855

A=0;B=½;C=1;D=0

In case students can only tick one box, you might consider giving a partial grade for a partially correct answer. In this case, answer C is correct, but answer B is not so far off, so you give them ½ point.

You might also use start using this option for corrections after the test, for example, after discussion with students, or if triggered by the test result analysis.

Grading: how is the grade made up?

This is a screen of the *standard* **Grade Settings**:

The screenshot shows the 'Grading' settings interface. At the top, there are tabs for 'Properties', 'Scoring', 'Grading' (highlighted), 'Data', 'Notes', 'Reports', and 'Attachments'. Below the tabs are buttons for 'Back', 'Edit', and 'Load Summary'. An orange arrow points to the 'Edit' button.

Grade Settings

Grade format	Numeric ascending
Round (decimals)	1
Worst grade	1,0
Best grade	10,0
Pass grade	6,0
Half points only	

Scoring Summary

Scoring Values	
Minimum score	0,00
Maximum score	20,00
Chance score	5,00
Participants Score	
Minimum score	2,00
Maximum score	17,00
Minimum score + bonus	2,00
Maximum score + bonus	17,00
Average score	9,92
Standard deviation	3,11
Standard error of measurement	1,98
Cohen-Schotanus	11,30
Percentile score	15,50

Score to Grade Transformation

Transformation method	Linear
Calculation method	Variable scores (automatic)
Transformation template	Chance score → Max. score
Measure points	2

Transformation Table

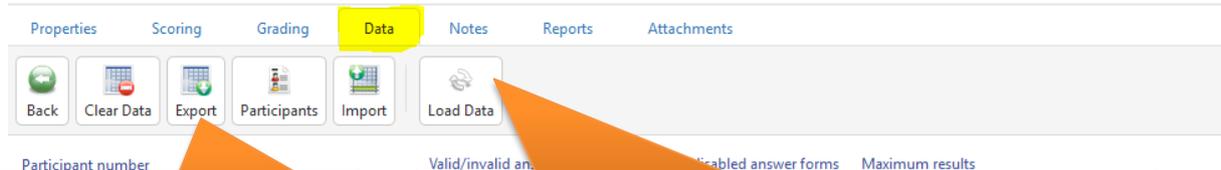
No.	Variable	Score		Grade
1	Chance score	5.0000	=	1
2	Maximum score	20.0000	=	10

- If you want to change these settings you can use the **Edit** button.

Data: reviewing students' results

Here you can see the answers of all students, and open the scans of the answer sheets of individual students.

- Go to the **Data tab**



This will **Export** the answers of the students to a **.csv-file**

If you don't see any results, click on the **load data** button

<input type="checkbox"/>	Enabled	Participant	Form Id	Batch	PgNo	Received	Version	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<input type="checkbox"/>	✓		40580	536	0	26-08-2019	1	C	B	C	C	B	A	D	A	D	B	A	B	D	C	B	D	C	C	B	D
<input type="checkbox"/>	✓		13140	536	1	26-08-2019	1	B	D	C	D	B	A	C	B	C	D	C	D	A	A	D	A	B	C	B	B
<input type="checkbox"/>	✓		6262	536	2	26-08-2019	1	C	D	B	D	D	A	B	B	C	B	B	D	D	C	D	B	D	C	C	B
<input type="checkbox"/>	✓		13140	536	3	26-08-2019	1	C	D	C	B	A	A	D	C	C	A	A	D	A	B	D	C	D	C	B	D
<input type="checkbox"/>	✓		6262	536	4	26-08-2019	1	C	D	C	B	A	A	B	A	D	C	B	D	A	C	D	A	D	C	B	D
<input type="checkbox"/>	✓		40580	536	5	26-08-2019	1	C	D	B	D	A	B	A	A	A	A	B	D	C	C	D	D	D	C	C	D

Click on the **PDF icon** to see the student answer sheet.

Participant name
Participant number
Version
Enabled
Disable reason
Comments
File

HAZG5EJW0000.pdf

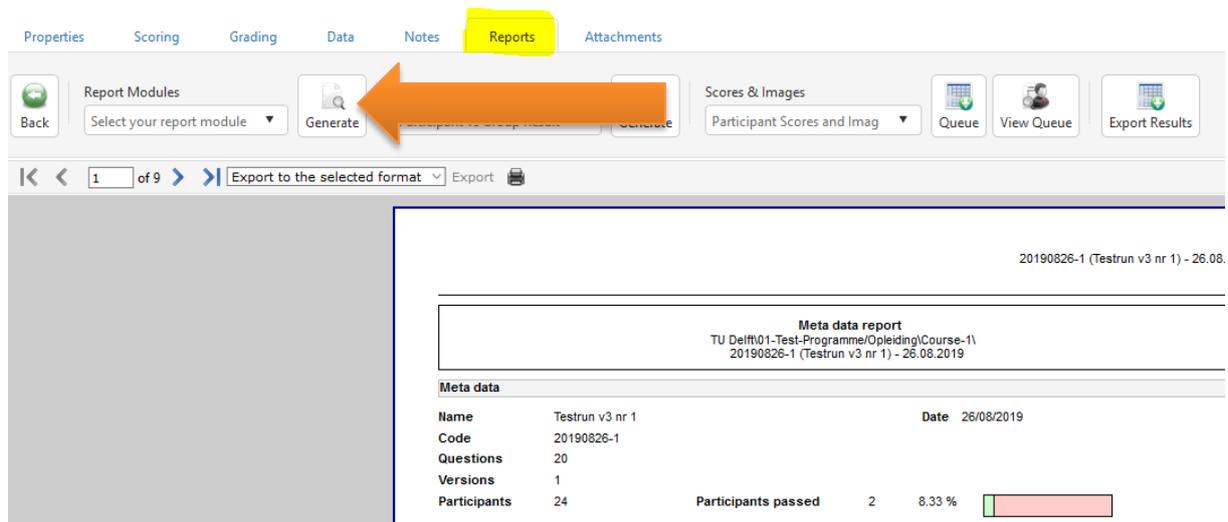
Move your mouse over the image below to zoom

No.	Type	Evaluated	Status	Verified	Answer	Correct Answer
1	1 (4)	B	8	C	C	C
2	1 (4)	D	0	D	D	D
3	1 (4)	B	0	B	B	C
4	1 (4)	D	0	D	D	B
5	1 (4)	A	0	A	A	D
6	1 (4)	B	0	B	B	A
7	1 (4)	A	0	A	A	A
8	1 (4)	A	0	A	A	A
9	1 (4)	A	0	A	A	C
10	1 (4)	A	0	A	A	A
11	1 (4)	B	0	B	B	A
12	1 (4)	D	0	D	D	D
13	1 (4)	C	0	C	C	C
14	1 (4)	C	0	C	C	C
15	1 (4)	D	0	D	D	D
16	1 (4)	D	0	D	D	D
17	1 (4)	n	n	n	n	n

Reports: generating and exporting reports

Here you can generate the report of the test (test result analysis) and use this report to export the scores and grades of your students.

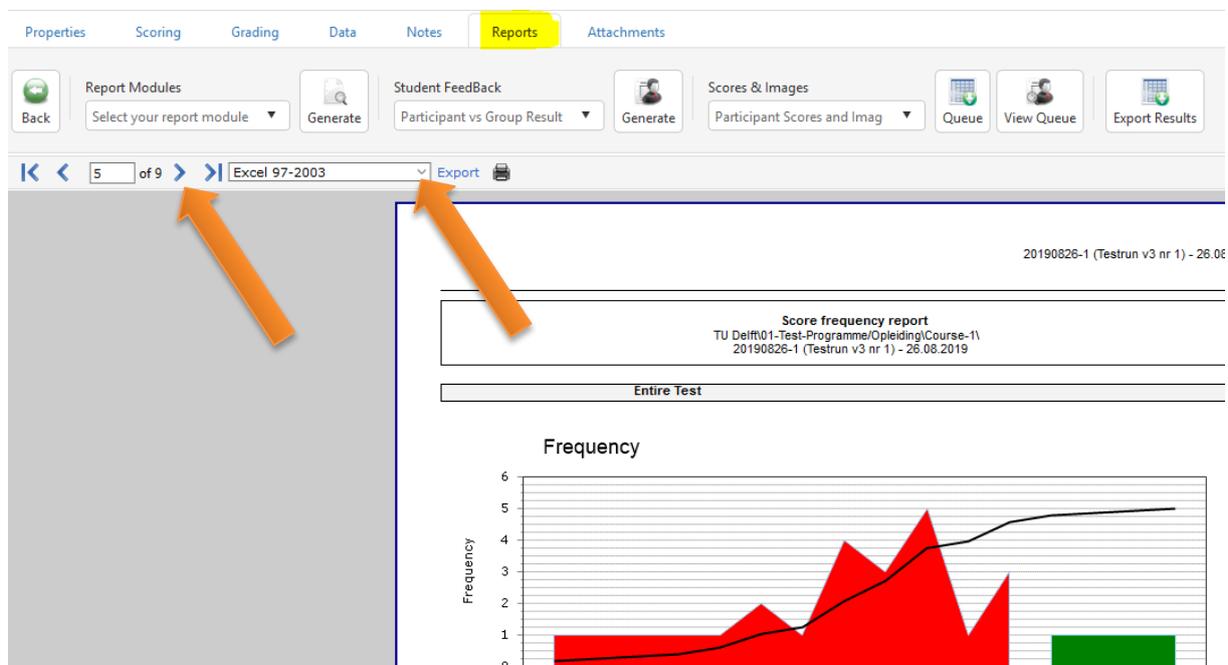
- Go to the **Reports** tab
- Click on **Generate**
- It takes a few moments to generate the report



The screenshot shows the 'Reports' tab in the ConTest interface. The 'Generate' button is highlighted with an orange arrow. The report content shows 'Meta data report' for 'TU Delft01-Test-Programme/Opleiding/Course-1' with 24 participants and 2 passed.

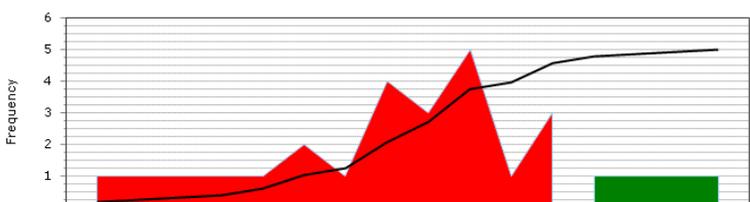
Meta data			
Name	Testrun v3 nr 1	Date	26/08/2019
Code	20190826-1		
Questions	20		
Versions	1		
Participants	24	Participants passed	2 8.33 %

- Use the **arrows** to click through the report pages
- If you want to **export** the report, select the file **format** first.

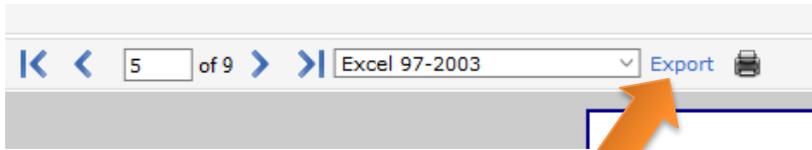


The screenshot shows the 'Reports' tab in the ConTest interface. The 'Export' button is highlighted with an orange arrow. The report content shows 'Score frequency report' for 'TU Delft01-Test-Programme/Opleiding/Course-1' with a frequency chart.

Frequency



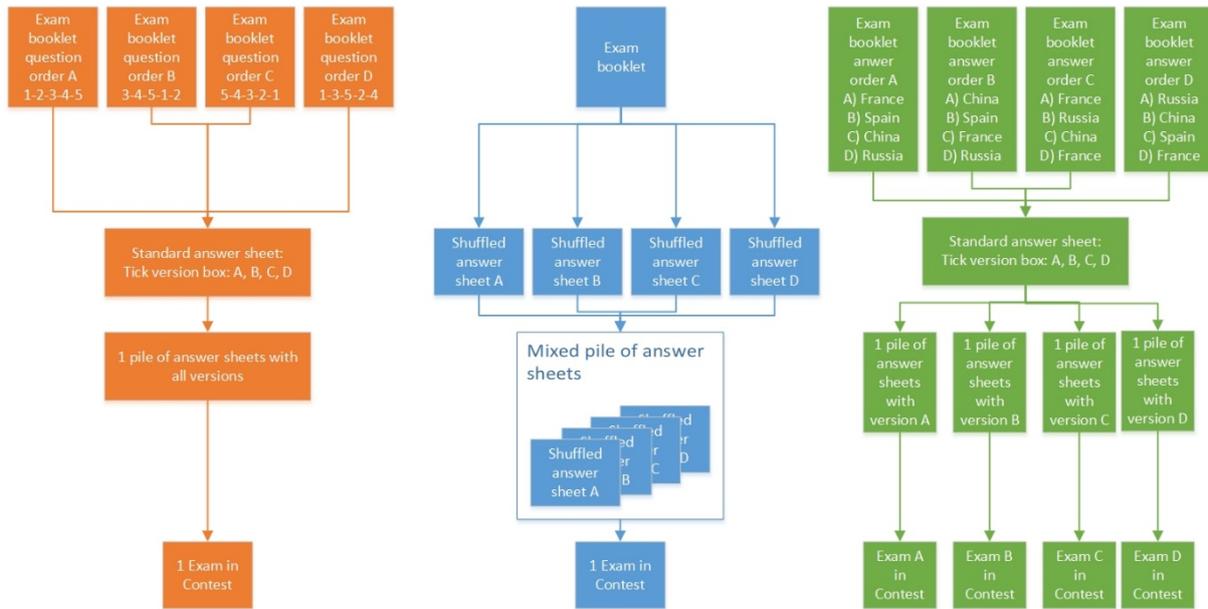
- After selecting the file format, click on **Export**



Extra: Three anti-cheating options (versioning)

There are three options that you can use to make cheating more difficult:

1. Version mapping of question order
2. Shuffled answer sheet
3. Creating different exams



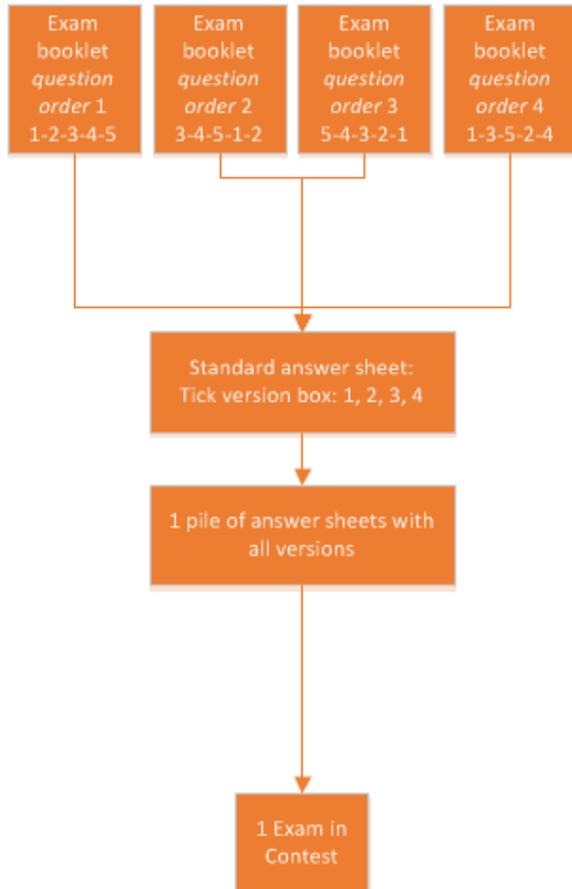
Overview of anti-cheating options. **Orange:** 1. Version mapping of question order; **Blue:** 2. Shuffled answer sheets; **Green:** 3. Different exams.

1 - Version Mapping of question order

To make cheating during a test more difficult, ConTest can create multiple versions of a set of exam questions by **changing the question order**.



It is **NOT** possible to change the order of the answers within a single exam!

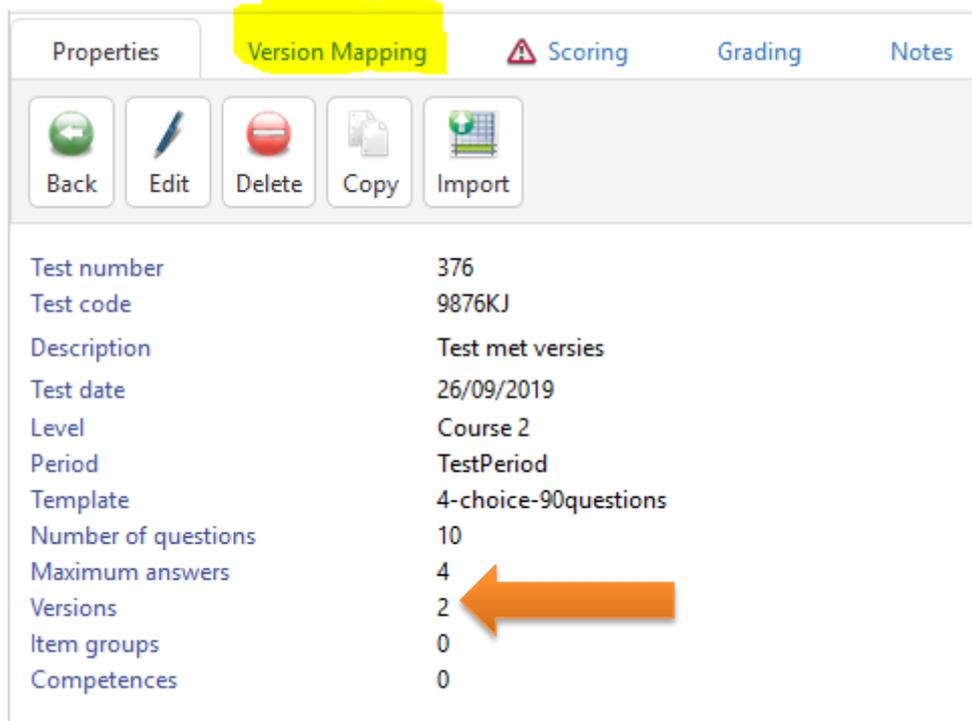


Comments:

- ☞ It is not possible to ask different questions in different versions.
- ☞ Changing the order might influence the difficulty of an exam. For example, it is more pleasant for a student to answer questions that have a logical order, and to start with an easy question. Therefore, it is not recommended to randomise the order in a version, since this might result in different performances for the different versions. It is advisable to keep a logical order and shift all questions by a fixed amount. ConTest enables you to change the order.

Using Version Mapping ConTest

ConTest will help you shifting the order of the questions, using the concept of Version Mapping. When adding more than 1 version to the properties a new **Version Mapping Tab** shows.



Properties	Version Mapping	Scoring	Grading	Notes
Back	Edit	Delete	Copy	Import
Test number	376			
Test code	9876KJ			
Description	Test met versies			
Test date	26/09/2019			
Level	Course 2			
Period	TestPeriod			
Template	4-choice-90questions			
Number of questions	10			
Maximum answers	4			
Versions	2			
Item groups	0			
Competences	0			

When using versions you create a master Test called **Version 1**. Next you create 1 or more additional versions of the same test (version 2, 3 and 4). In each of the additional versions, the only thing that you can change between the versions is the order of the questions.

You cannot change the order of the answer options. You have to ask *exactly the same questions with the same answer options in the same answer option order*. Only, **the questions will appear in a different order**.

When entering additional versions of a test ConTest supports four methods:

- **Copy** an existing version to another version. This is useful when there are 2 similar versions
- **Shift** a version by a certain number of questions.
- **Reverse** a complete version (see screenshot below)
- **Manually** enter for each additional version the corresponding question number in version 1.

Version Mapping

Back Save Cancel

Copy version 1 ▼ to 2 ▼ Go

Shift version 2 ▼ with 1 Go

Reverse version 2 ▼ Go

Version 1	Version 2
1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
9	2
10	1

In the example above, the first question in version 2 is the last question in version 1.

In the exam of the student who has version 2, this question is number one. See below for an example:

Version 1:

1. What is the 101st ASCII character?
- A. e
 - B. f
 - C. g
 - D. H

[questions 2-59]

60. What is the 160th ASCII character?
- A. á
 - B. f
 - C. g
 - D. H

Version 2:

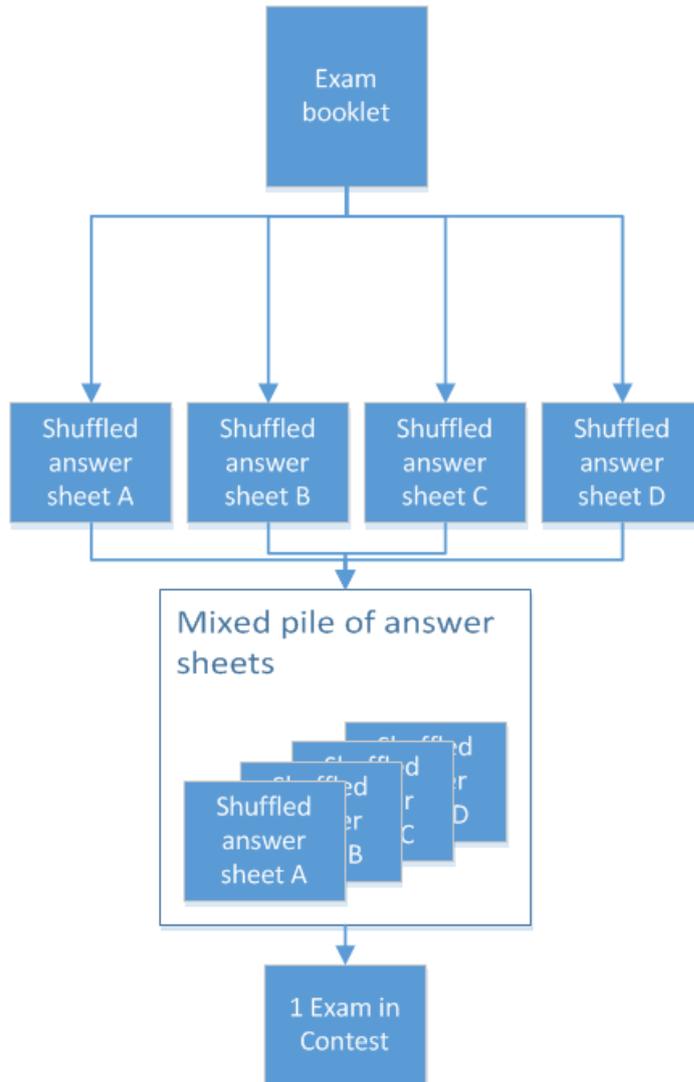
1. What is the 160th ASCII character?
- A. á
 - B. f
 - C. g
 - D. H

[questions 2-59]

60. What is the 101st ASCII character?
- A. e
 - B. f
 - C. g
 - D. H

2 - Shuffled answer sheets

The second option to make cheating during a test more difficult is to use **answer sheets** where the order of **answers** have been **shuffled**.



Example of **shuffled** answer sheet:

1	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> B	<input type="checkbox"/> A
2	<input type="checkbox"/> D	<input type="checkbox"/> C	<input type="checkbox"/> A	<input type="checkbox"/> B
3	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
4	<input type="checkbox"/> B	<input type="checkbox"/> A	<input type="checkbox"/> D	<input type="checkbox"/> C
5	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> A	<input type="checkbox"/> B
6	<input type="checkbox"/> D	<input type="checkbox"/> C	<input type="checkbox"/> B	<input type="checkbox"/> A
7	<input type="checkbox"/> A	<input type="checkbox"/> D	<input type="checkbox"/> C	<input type="checkbox"/> B
8	<input type="checkbox"/> D	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C
9	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> A
10	<input type="checkbox"/> C	<input type="checkbox"/> B	<input type="checkbox"/> A	<input type="checkbox"/> D

The names of the 4 answers sheets can be found at the top:

 13140	Answer Sheet (4-choice - shuffle-A - 90 questions)	
 6262	Answer Sheet (4-choice - shuffle-B - 90 questions)	
 40580	Answer Sheet (4-choice - shuffle-C - 90 questions)	
 49422	Answer Sheet (4-choice - shuffle-D - 90 questions)	



If you are using these answer sheets **make sure you always use shuffle-A as your keyform.**

Comments:

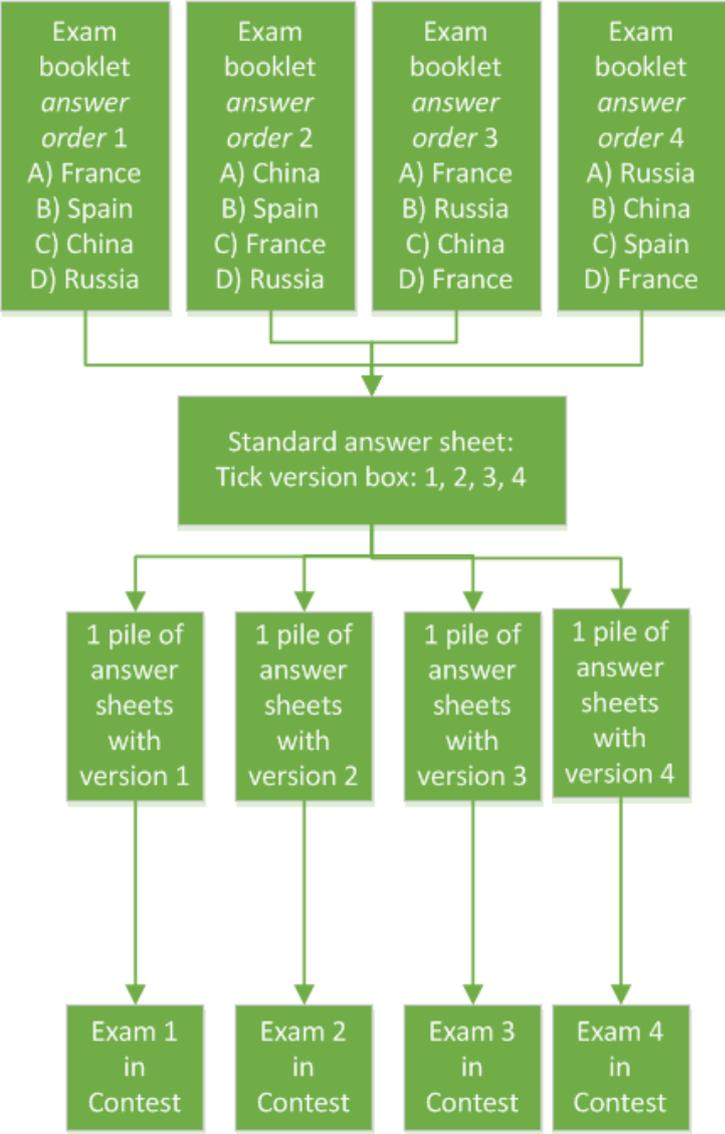
- ☞ The test is meant to measure how well student master the learning objectives. The shuffled type of answer sheets may lead to mistakes due to other factors. These random errors diminish the reliability of the grade, and lower the grades. This can most likely cause extra stress for students. To avoid this, make sure to have them practice writing tests with shuffled answer forms to help them prepare.
- ☞ You may need to take extra measures for students with special needs, like having them write the answers on a paper (e.g. '1.C') and having the invigilators check whether these match the answer sheet.

3 - Different exams

The third option to make cheating during a test more difficult is to use 2 or more different exams. In order to keep the exams equally different, you are suggested keep the questions the same, but change the order of the answer options.

Contest *cannot* combine the results into one exam therefore you will have 2 or more test results.

You will have to hand in separate piles of answer sheets for each version of the exam at the ESA desk and you will receive separate files (results and test analyses) for each version.



Questions and Contact

Help with	Function	Contact	Email
General information on Contest can be found here: https://brightspace-support.tudelft.nl/contest/			
If you have questions or need more support on educational aspects or interpretation of the test result analysis	Assessment advisor	<ol style="list-style-type: none">1. Your faculty's ESA contact person2. Assessment advisor at Teaching and Learning Services: Lisette Harting l.p.harting@tudelft.nl	
Questions about functionalities or bugs/errors in ConTest. Or if you need support on technical or account related issues	Functional application manager	Kasja de Jong	Fab-contest@tudelft.nl 015-2784590
Status of processing your tests after handing it over	ESA-desk	Leon van der Drift	contest-os@tudelft.nl