

MarkShark

Tutorial for Version 1.2

A step-by-step guide to grading your first test

Fast and accurate bubble sheet grading for teachers.

What You'll Learn

This tutorial walks you through the complete MarkShark grading workflow using sample data we've included for you. By the end, you'll know how to:

- Download sample files to practice with
- Set up a course folder and create an assessment
- Load your scans, answer key, and roster into the Grader
- Align and score a set of bubble sheets
- Review flagged answers and make corrections
- Generate a full exam report with statistics and item analysis

No real student data is needed for the tutorial — everything you need is bundled with MarkShark.

Step 1: The Welcome Page

When you open MarkShark, the Welcome page is the first thing you see. It's your home base for getting started.

The Welcome page has several sections:

- **Bubble Sheet Templates** — Browse and download ready-to-print bubble sheets
- **Create Your Answer Keys** — Create and manage answer key files
- **Steps to Working with MarkShark** — A quick overview of the MarkShark workflow (the six steps on the right side)
- **Course Setup** — Buttons to set up your course folders and manage assessments

Look for the Getting Started tile on the right side of the Welcome page. At the bottom of that tile you'll find two buttons. The one we want is **Tutorial & Sample Data**.

MarkShark Fast and accurate bubble sheet grading for teachers.
v1.1.6.dev1+gf50f149cf

Welcome

Bubble Sheet Templates
Browse one of our many ready-to-use bubble sheets, pick a favorite, and download the PDF for printing.
[Browse Templates](#)

Create Your Answer Keys
It's easy to make an answer key for MarkShark. You can use a word processor or spreadsheet or our utility to create and edit answer keys for your tests.
[Answer Key Utility](#) [Download Sample Key](#)

Steps to working with MarkShark

- Print** Download a bubble sheet. Print copies for your class.
- Scan** Scan the completed test sheets into a PDF.
- Set Folder** Set a MarkShark folder for your classes or section.
- Grade** Upload your scans, answer keys, and click Score.
- Review** Review student answers and click correct if needed.
- Report** Get a summary report of student performance, question difficulty, and score distributions.

[Help & Documentation](#) [Tutorial & Sample Data](#)

Set up a MarkShark folder for each of your courses (or sections). [+ New Course](#) [Course Manager](#)

Make a different MarkShark folder for each course or section you teach inside the folder you're already using for your class. MarkShark will create subfolders for each assessment to store all associated files and data (e.g., Midterm 1 or Final Exam 2025).

Biology 101 Section 1 2025	/Users/williamnavarre/Desktop/BIO101 2025/Section1	5 assessments	Open Folder
Biology 101 Section 2 2025	/Users/williamnavarre/Desktop/BIO101 2025/Section2	5 assessments	Open Folder


Recent Assessments [+ New Assessment](#) [Course Manager](#)

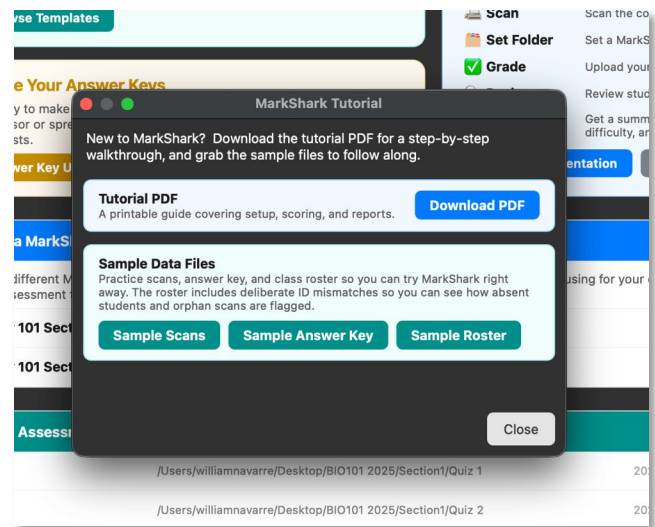
Quiz 1	/Users/williamnavarre/Desktop/BIO101 2025/Section1/Quiz 1	2026-03-26	Open Folder	Load
Quiz 2	/Users/williamnavarre/Desktop/BIO101 2025/Section1/Quiz 2	2026-02-25	Open Folder	Load

Step 2: Download the Tutorial Data Files

Click the **Tutorial & Sample Data** button. A dialog opens with download buttons for the tutorial PDF and three sample data files.

Download each of the three sample data files. Each button opens a Save dialog — pick a location and click Save.

 **Tip:** Save all three files to a new folder on your Desktop or Documents so they're easy to find in the next steps. Call the new folder “MarkShark” or “Tutorial”



The Sample Files

Feel free to open the files you've downloaded to see what each file looks like.

Sample Scans (sample_scans.pdf) — A PDF containing 40 pre-filled bubble sheets. These are synthetic scans generated by MarkShark's mock data tool, so no real student data is involved.

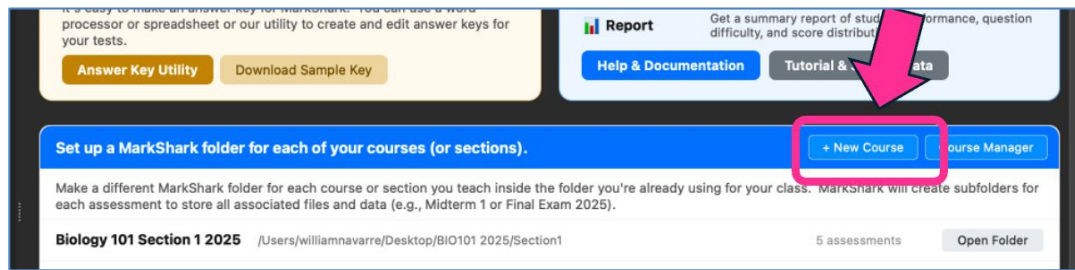
Sample Answer Key (sample_answer_key.txt) — An answer key for a two-version exam (Version A and Version B). Each version has 60 questions worth 1 point each, except question 4, which is worth 3 points.

Sample Roster (sample_roster.csv) — A class roster with 40 fictional students. Each row has a Student ID, first name, and last name. MarkShark uses this to match scanned IDs to student names.

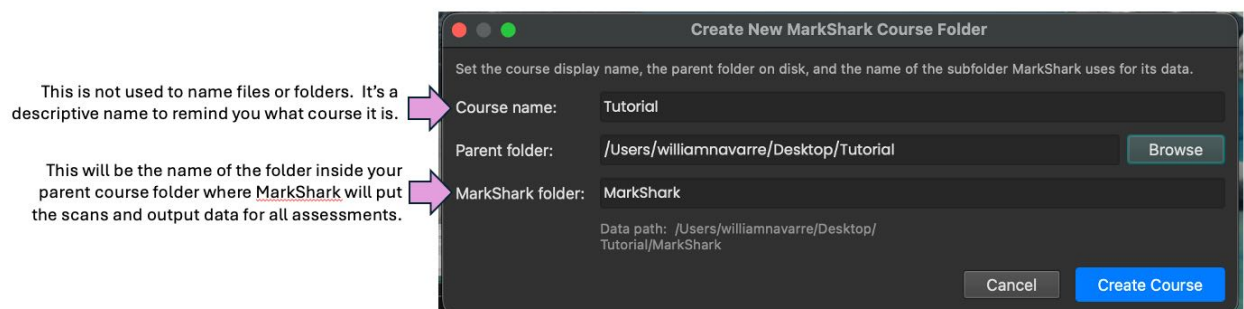
Step 3: Point MarkShark to Your Course Folder (or create a new one)

Before you can grade anything, MarkShark needs to know where to store your files. You do this by creating a **course folder** — a folder on your computer where MarkShark will keep all the assessments for one class.

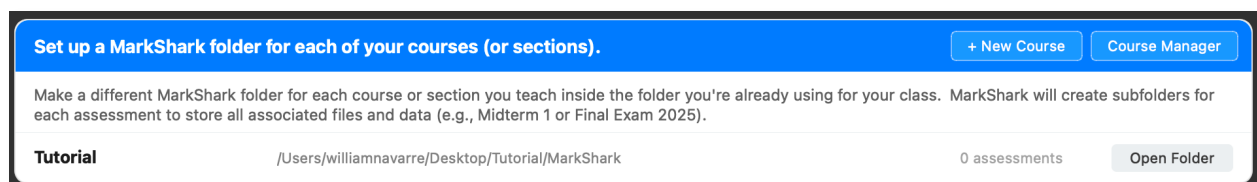
Back on the Welcome page, click the **+ New Course** button near the bottom of the page.



A folder picker opens. Navigate to where you keep your course files and either select an existing folder or create a new one. For this tutorial, you might create a folder called something like “Tutorial” on your Desktop or in your Documents folder.



When you've successfully created a new course, it should appear in the blue section of the welcome page as shown below...



Course Folders, MarkShark Folders, and Assessment Folders

A course (parent) folder is simply the regular folder on your computer where you keep your all files related to the course. Inside of that you make a folder for the MarkShark files. This will hold subfolders for each assessment (quizzes, midterms, final exam, etc.).

For example, if you teach Biology 101, your folder structure might look like this:

My Documents

BIO101

Lectures

Notes

Readings

Tests

Midterm 1

Midterm 2

Final Exam

<- this folder is where MarkShark holds all assessments

<- this folder is where MarkShark keeps midterm 1 data

<- this folder is where MarkShark keeps midterm 2 data

<- this folder is where MarkShark keeps final exam data

In this example:

'BIO101' is the course (parent) folder

'Tests' is the MarkShark folder

'Midterm 1', **'Midterm 2'**, and **'Final Exam'** are each assessment folders.

You can have multiple course folders or MarkShark folders inside a single course folder — like one per class or section. MarkShark remembers all of them in the Course Manager.

In the example below I set up MarkShark folders for a fictional class 'Biology 101', one for each section of the course (sections 1 and 2). Those are shown in the blue area below. In the teal/green area below that you see that each section had two quizzes, two midterms, and two final exams.

Set up a MarkShark folder for each of your courses (or sections).

+ New Course

Course Manager

Make a different MarkShark folder for each course or section you teach inside the folder you're already using for your class. MarkShark will create subfolders for each assessment to store all associated files and data (e.g., Midterm 1 or Final Exam 2025).

Biology 101 Section 1 2025	/Users/williamnavarre/Desktop/BIO101 2025/Section1	5 assessments	Open Folder
Biology 101 Section 2 2025	/Users/williamnavarre/Desktop/BIO101 2025/Section2	5 assessments	Open Folder

Recent Assessments

+ New Assessment

Course Manager

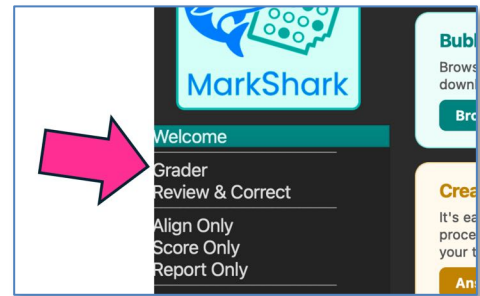
Quiz 2	/Users/williamnavarre/Desktop/BIO101 2025/Section1/Quiz 2	2026-03-27	Open Folder	Load
Quiz 1	/Users/williamnavarre/Desktop/BIO101 2025/Section1/Quiz 1	2026-03-27	Open Folder	Load
Midterm 1	/Users/williamnavarre/Desktop/BIO101 2025/Section2/Midterm 1	2026-02-23	Open Folder	Load
Quiz 1	/Users/williamnavarre/Desktop/BIO101 2025/Section2/Quiz 1	2026-02-23	Open Folder	Load
Quiz 2	/Users/williamnavarre/Desktop/BIO101 2025/Section2/Quiz 2	2026-02-20	Open Folder	Load
Midterm 2	/Users/williamnavarre/Desktop/BIO101 2025/Section2/Midterm 2	2026-02-20	Open Folder	Load
Final Exam	/Users/williamnavarre/Desktop/BIO101 2025/Section2/Final Exam	2026-02-20	Open Folder	Load
Final Exam	/Users/williamnavarre/Desktop/BIO101 2025/Section1/Final Exam	2026-02-19	Open Folder	Load

Step 4: Create Your First Assessment

Click **Grader** in the left sidebar to open the Grader page. This is where all the grading happens.

At the top of the Grader page you'll see a teal-colored bar with two dropdowns:

- **Course** — shows your course folder
- **Assessment** — where you'll create and select individual tests



Your newly created course should already appear in the Course dropdown. If it doesn't, click the Browse button next to the Course dropdown and select it.

Now click the **New** button next to the Assessment dropdown. Type a name for this assessment — something like “Tutorial Practice Test” — and click OK.

MarkShark creates a new assessment folder inside your course folder with three subfolders: **input_files** (for your scans, key, and roster), **score_data** (for results), and **logs** (for processing details).

Step 5: Select a Template and Load Your Files

With your assessment selected, you're now looking at the Align & Score tab. There are a few things to set up before grading.

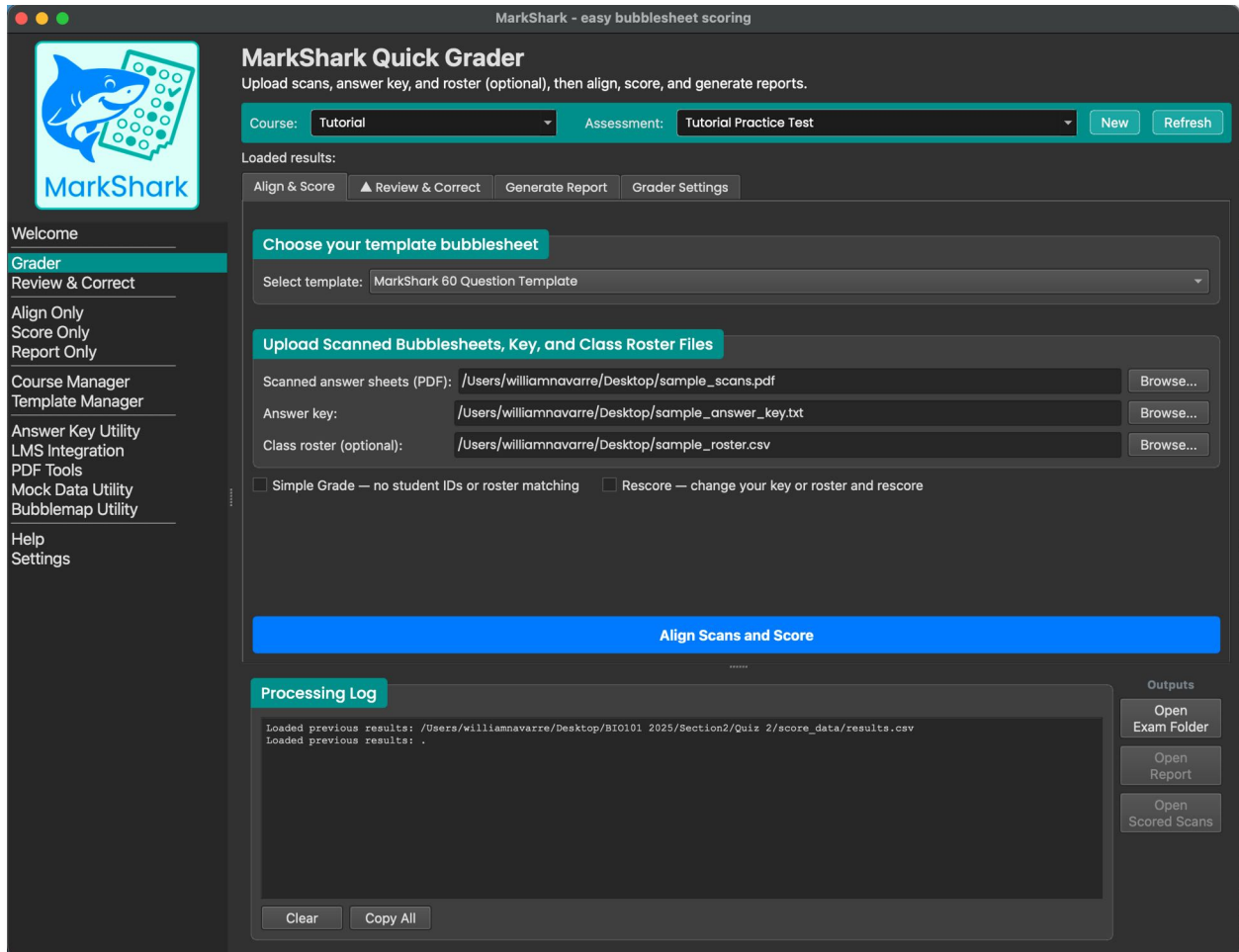
Choose Your Template

In the **Select template** dropdown, select **60Q 5-Choice (A–E)**. This is the bubble sheet layout that matches the sample scans you downloaded.

Load Your Files

Beneath the template selection pane is the pane labeled “**Upload Scanned Bubblesheets, Key and Class Roster Files**”. Use the **Browse** button next to each file input to load the sample files you downloaded in Step 2. You can also use your mouse to drag the files into their respective upload boxes.

1. **Scanned answer sheets** — Navigate to the sample_scans.pdf file you saved earlier.
2. **Answer key** — Navigate to the sample_answer_key.txt file.
3. **Class roster** — Navigate to the sample_roster.csv file.



💡 **Tip:** MarkShark automatically copies your files into the assessment's input_files folder. **Your originals are never modified.**

Step 6: Align & Score

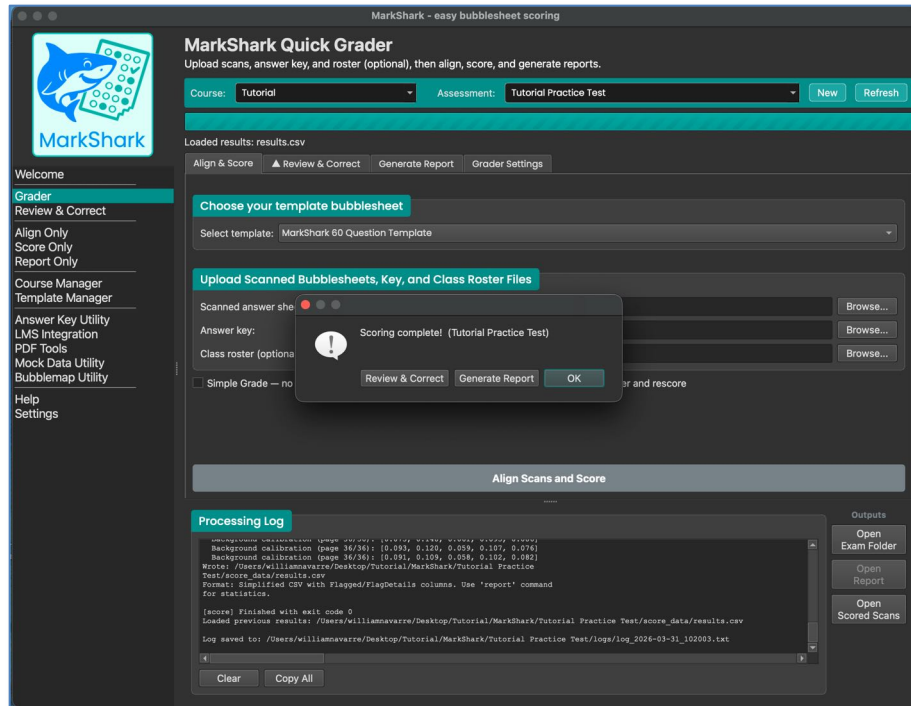
Everything is loaded. Click the blue **Align Scans and Score** button.

A progress bar appears as MarkShark works through two stages:

4. **Alignment** — Each scanned page is straightened and aligned to the bubble sheet template. This corrects for scanner skew and ensures every bubble is in the expected position.
5. **Scoring** — MarkShark reads every bubble on every sheet, measures how dark each mark is, and compares the student's answers to the answer key.

When finished, a dialog appears: **Scoring Complete!** You'll see three buttons:

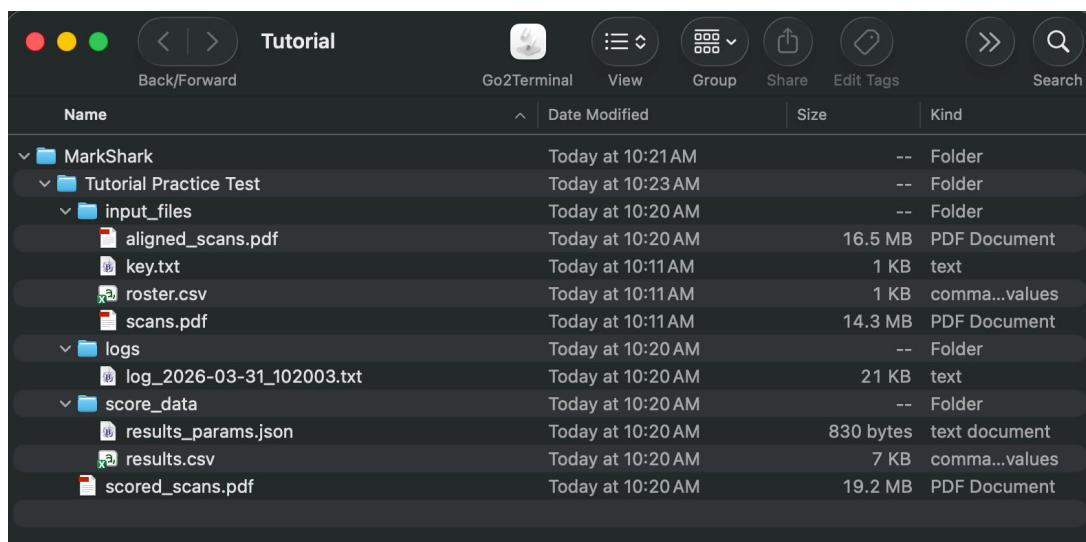
- **Review & Correct** — Opens the Review & Correct page (we'll use this next)
- **Generate Report** — Jumps to the report tab
- **OK** — Stays on the current page



What Just Happened?

1. MarkShark made copies of your scans, key and roster to the input files folder.
2. MarkShark created **scored_scans.pdf** inside the assessments folder. This is an annotated copy of each scanned page. Every bubble shows a fill-percentage score in blue text. Correct answers are circled in green, incorrect in red. Blank rows have purple boxes, and multi-marks have orange boxes.
3. MarkShark created a **results.csv** — A spreadsheet with one row per student containing their name, ID, version, score, and every individual answer.

After the grading step your folder should look like this...



In the main Tutorial Practice Test folder is the scored_scans.pdf. Go ahead and open it to see what a scan looks like after MarkShark has graded it.

[illegible]

If MarkShark has difficulty you will have to make a judgement call as to whether a bubble is really filled by the student in the review and correct step

Step 7: Review & Correct

Click **Review & Correct** in the Scoring Complete dialog (or click **Review & Correct** in the left sidebar at any time).

The Review page is split into two panels:

- **Left side** — A spreadsheet showing every student's answers and scores
- **Right side** — A PDF viewer showing the annotated scan for the selected student

Page	Version	LastName	FirstName	StudentID	Score	Correct	Inc
4	B	MACDONALD	ZACK	5834080695	38	36	23
7	A	KENNEDY	CARLA		45	43	17
8	B	OWENS	REBEC	1972754233	54	52	8
10	B	TUCKER	SANDR	4038829919	48	46	13
13	A	LA FONTAINE	CARLA	7555746893	43	41	18
14	B	MULLER	BRIAN	3220489330	44	42	17
18	B	RODRIGUEZ	BARBA		56	54	6
23	A*	TAYLOR	DIANA	6489299395	57	55	5
24	B	WELLS	EMILY	5409640779	39	37	23
25	A	FARAH	RONAL	4039911171	35	35	24
31	A	COLEMAN	SARAH	5857614483	21	21	38
34	B*	KIM PARK	ZOEY	5979700770	41	39	21

In the tutorial dataset we have some scans that are intentionally messy to show you how to apply corrections. On four of the scans the student ID is filled in incorrectly or with such light marks that they were not scored correction. On other scans students accidentally put in two answers for a question (a multi-answer) and on others they forgot to answer anything at all (a blank answer).

MarkShark flags these scans for further review so you can correct them, if necessary, before issuing the final report. If you want to manually review ALL scans, not just the ones flagged by MarkShark you can click the 'Show All' button and scroll through them one by one.

MarkShark - easy bubblesheet scoring

MarkShark - Review & Correct

Review grading results and manually apply corrections.

Assessment: Tutorial Practice Test [New] [Refresh] Course: Tutorial [Browse]

[Return to Grader] [Show All] [Flagged Only] [Apply Corrections & Re-annotate] [Clear Corrections]

Page	Version	LastName	FirstName	StudentID	Score	Correct	Incorrect	Blank
4	B	MACDONALD	ZACK	5834080695	38	36	23	1
7	A	KENNEDY	CARLA		45	43	17	0
8	B	OWENS	REBEC	1972754233	54	52	8	0
10	B	TUCKER	SANDR	4038829919	48	46	13	1
13	A	LA FONTAINE	CARLA	7555746893	43	41	18	0
14	B	MULLER	BRIAN	3220489330	44	42	17	0
18	B	RODRIGUEZ	BARBA		56	54	6	0
23	A*	TAYLOR	DIANA	6489299395	57	55	5	0
24	B	WELLS	EMILY	5409640779	39	37	23	0
25	A	FARAH	RONAL	4039911171	35	35	24	1
31	A	COLEMAN	SARAH	5857614483	21	21	38	0
34	B*	KIM PARK	ZOEY	5979700770	41	39	21	0

Flags: blank at Q51
Loaded: results_original.csv

On the review and correct table we can see the following issues right away...

- Four students didn't fill in their student ID numbers properly - either the number was left blank (two students) or the number given does not match anybody on the roster (two students). MarkShark labeled those student ID cells in pink.
- Two students, Diana Taylor and Zoey Kim Park, did not fill out their test versions on their bubblesheets. They have orange boxes and MarkShark guessed what their version was by finding the highest number of correct answers. You can verify if MarkShark indeed called the version number correctly.

Other students were flagged because of issues with specific questions. To see those, click on the student's name.

- When you click on the first name in the list (Zack MacDonald) you will see his bubblesheet on the right side and a flag appear at the bottom of the window in a yellow box. In this case MarkShark noted that there was no answer given for question 51. You can manually check if that is indeed the case by looking at the bubblesheet. Markshark has highlighted Q51 on the bubblesheet with a pink/purple box.

Understanding Flagged Items

MarkShark automatically flags answers that may need your attention. Click any row in the spreadsheet to see that student's scanned sheet in the PDF viewer on the right. Use the Fit Page and Zoom In buttons to get a closer look.

Flagged cells are highlighted with colors:

Color	Meaning	What to Do
Pink	Blank answer	No bubble met the fill threshold. Check the PDF — if the student clearly marked an answer, double-click to correct it.
Orange	Multi-mark	Two or more bubbles appear filled. Look at the scan to see which answer the student intended, then double-click to enter the correct one.
Light red	Orphan ID	The bubbled student ID doesn't match anyone on the roster. The student may have mis-bubbled their ID. Check the flag info panel for suggested matches.

Making a Correction

To correct an answer, **double-click** the answer cell (Q1, Q2, etc.) you want to fix. Type the correct letter (for example, **C**) and press **Enter**.

Manually corrected cells turn blue to show that a correction has been applied.

You can also double-click the StudentID, LastName, or FirstName cells to correct student identification.

For student IDs, MarkShark will propose the best guess from the roster - from the students that are not already accounted for by another scan.

Undoing a Correction

- To undo a corrected answer or name, **right-click** the blue cell and choose **Revert to Original**.
- To undo a corrected student ID, select the cell and an option is presented at the bottom of the window to undo the correction. Or you can manually re-enter a new ID number.
- To restart from scratch simply click the clear

Applying Your Corrections

When you've made all your corrections, click the **Apply Corrections & Re-annotate** button at the top of the page. This will recalculate student scores and generate a new results.csv file based on your corrections.

A confirmation dialog shows you exactly what will be updated. Click Yes to proceed.

MarkShark re-scores all sheets with your corrections applied and updates both the results CSV and the annotated PDFs. *The original results are saved as results_original.csv as a backup.*

MarkShark - Review & Correct
Review grading results and manually apply corrections.

Assessment: Tutorial Practice Test [New] [Refresh] Course: Tutorial [Browse]

[Return to Grader] [Show All] [Flagged Only] [Apply Corrections & Re-annotate] [Clear Corrections]

Page	Version	LastName	FirstName	StudentID	Score	Correct	Incorrect	Blank
4	B	MACDONALD	ZACK	5834080695	38	36	23	1
7	A	KENNEDY	CARLA	2850755774	45	43	17	0
8	B	OWENS	REBEC	1927754233	54	52	8	0
10	B	TUCKER	SANDR	4038829919	48	46	13	1
13	A	LA FONTAINE	CARLA	7555746893	43	41	18	0
14	B	MULLER	BRIAN	3220489330	44	42	17	0
18	B	RODRIGUEZ	BARE					
23	A*	TAYLOR	DIAN					
24	B	WELLS	EMIL					
25	A	FARAH	RONA					
31	A	COLEMAN	SARA					
34	B*	KIM PARK	ZOEN					

Orphan ID: 5409640779 (WELLS, EMILY)
Accept 5409640739 — Emily Wells (1 digit off, partial name)

36 students | 4 orphans | 12 flagged | 4 corrections

In this example the student IDs have been manually corrected (hence they are in blue).

Tip: You can make corrections and re-annotate as many times as you need. Each time, the current results are overwritten but the original scores are preserved in a backup file.

Step 8: Generate a Final Report

Go back to the Grader page and click the **Generate Report** tab. (You can also get here by clicking **Generate Report** in the Scoring Complete dialog.)

The Results CSV field should already be filled in. If you applied corrections, the corrections file will also be loaded automatically. The roster is also pre-loaded if one was provided during scoring. Otherwise you can also upload a roster here.

The screenshot shows the MarkShark Quick Grader interface. At the top, the title is 'MarkShark - easy bubblesheet scoring'. Below it, the 'MarkShark Quick Grader' section has a subtitle: 'Upload scans, answer key, and roster (optional), then align, score, and generate reports.' The 'Assessment' dropdown is set to 'Tutorial Practice Test', with 'New', 'Refresh', and 'Course' buttons. The 'Course' dropdown is set to 'Tutorial', with a 'Browse' button. Below this, it says 'Loaded results: results.csv'. There are four tabs: 'Align & Score', 'Review & Correct', 'Generate Report' (which is highlighted with a red arrow), and 'Grader Settings'. The 'Generate Report' tab contains an 'Upload Files to Generate Report' section with three rows: 'Results CSV' with a file path and a 'Browse...' button, 'Corrections (optional)' with a file path and a 'Browse...' button, and 'Class roster (optional)' with a file path and a 'Browse...' button. Below this is a large blue button labeled 'Create Report' with a red arrow pointing to it. At the bottom, there is a 'Processing Log' section with a text area showing 'Loaded previous results: /Users/williamnavarre/Desktop/Tutorial/MarkShark/Tutorial Practice Test/score_data/results.csv' and 'Clear' and 'Copy All' buttons. On the right side, there is an 'Outputs' section with three buttons: 'Open Exam Folder', 'Open Report', and 'Open Scored Scans'.

Click the blue **Create Report** button. MarkShark generates an Excel report and opens it automatically. It is saved to the assessments (exam) folder.

What's in the Report?

The Excel report (exam_report.xlsx) contains several sheets:

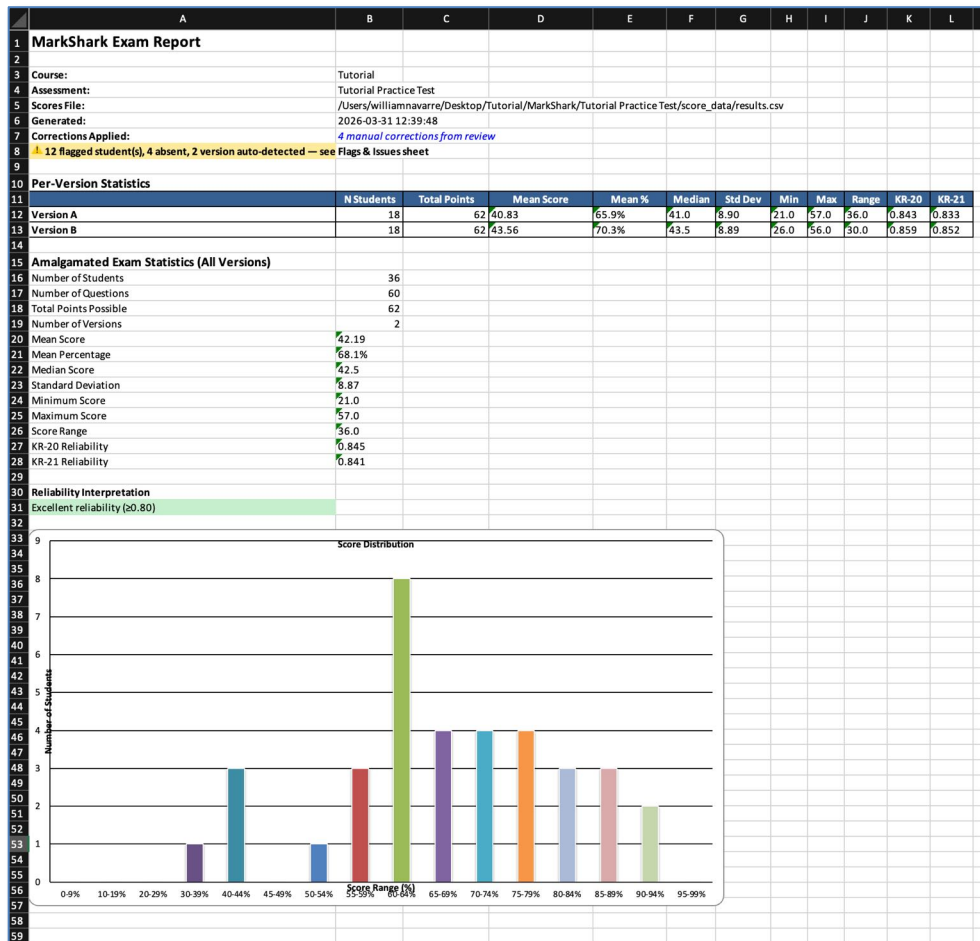
Summary — Class-wide statistics including average score, standard deviation, reliability coefficients (KR-20 and KR-21), and a score distribution chart.

Version A / Version B — Per-student results along with item analysis for each question: difficulty index (what percentage of students got it right) and discrimination index (how well the question separates strong from weak students).

Class Scores — An alphabetical list of all students with their final scores. This sheet is formatted for easy import into your gradebook or learning management system.

Answer Key — The correct answers and point values for each version.

Flags & Issues — A summary of absent students (on the roster but not in the scans), flagged items, any corrections you applied, and the scoring parameters used.



On the top sheet (summary) you get the summary statistics for the exam, in total and by version, including a histogram of student scores

Flags & Issues

1. 4 absent student(s)						
Student ID	Last Name	First Name				
9820962599	Brown	Mel				
9904426954	Bryant	Lin				
4261756951	Rice	Mason				
5875773018	Cohen-Levy	Jack				
2. 2 student(s) did not mark a version (assigned by best score match)						
Student ID	Last Name	First Name	Assigned	Version A	Version B	
6489299395	TAYLOR	DIANA	A	55/60	36/60	
5979700770	KIM PARK	ZOEY	B	28/60	39/60	
Student ID	Last Name	First Name	Version	Issues	Problem Questions	Corrections Applied
5834080695	MACDONALD	ZACK	B	1 blank	Q51=BLANK	
2850755774	Kennedy	Carla	A	orphan; 1 correction(s)		ID: page:7→2850755774
1927754233	Owens	Rebecca	B	orphan; 1 correction(s)		ID: page:8→1927754233
4038829919	TUCKER	SANDR	B	1 blank	Q49=BLANK	
7555746893	LA FONTAINE	CARLA	A	1 multi	Q27=A,B	
3220489330	MULLER	BRIAN	B	1 multi	Q59=A,B	
5742375192	Rodriguez	Barbara	B	orphan; 1 correction(s)		ID: page:18→5742375192
6489299395	TAYLOR	DIANA	A*	version auto-detected		
5409640739	Wells	Emily	B	orphan; 1 correction(s)		ID: page:24→5409640739
4039911171	FARAH	RONAL	A	1 blank	Q10=BLANK	
5857614483	COLEMAN	SARAH	A	1 multi	Q14=E,D	
5979700770	KIM PARK	ZOEY	B*	version auto-detected		
Total flagged: 12						
Scoring Parameters						
(Recorded so results can be replicated if needed.)						
Parameter	Value					
input_path	/Users/williamnavarre/Desktop/Tutorial/MarkShark/Tutorial Practice Test/input_files/aligned_scans.pdf					
key_txt	/Users/williamnavarre/Desktop/Tutorial/MarkShark/Tutorial Practice Test/input_files/key.txt					
roster_csv	/Users/williamnavarre/Desktop/Tutorial/MarkShark/Tutorial Practice Test/input_files/roster.csv					
template	{name: 'MarkShark 60 Question Template', 'description': '60 questions, 5 choices (A-E)'} 					
Min Fill %	45.0					
Fixed Threshold	180					
Auto Calibrate Threshold	True					
Background Calibration	True					
Background Percentile	10.0					
Adaptive Rescoring	True					
Adaptive Max Adjustment	40					
Adaptive Min Above Floor	30					
Render DPI	150					

On the Flags and Issues sheet you can see:

- four students on the roster missed the exam (absent students).
- the scores of the two students who didn't enter their test version. You get their scores for both version A and B so you can choose which one to go with.
- The list of flagged students and the corrections applied, if any. Here I only applied corrections to the student ID numbers and those are indicated in blue text.
- The parameters used for scoring.

You're Done!

You're now ready to use MarkShark with your own tests. Here are some things to explore next:

Help & Documentation — Click Help in the sidebar for detailed coverage of every feature, including advanced scoring options, template management, and troubleshooting.

Template Manager — Browse all the bubble sheet layouts available in MarkShark. Pick favorites and download PDFs for printing.

Answer Key Utility — A visual tool for building and editing answer keys. You can paste answers from Word or Excel, or import an existing key file.

Course Manager — Organize multiple courses and assessments. Browse your folder structure and open any past assessment directly in the Grader.

LMS Integration — Import gradebooks from Canvas, Brightspace, or other learning management systems, and export MarkShark scores back into them.