

## ITEM ANALYSIS

You can use item analysis to generate data that shows how your students are performing on their work. You can analyze assignments to see how all your students performed on the questions or you can analyze how an individual student performed on the questions in an assignment.

### Analyzing results by assignment

The assignment view of the Item Analysis page lets you analyze how your class performed on each question in a selected assignment. In the Gradebook, go to the All Assignments view. You can also go to the Homework, Quizzes, or Tests view, depending on the assignment category you want to view.

**Gradebook Views**

- ▶ **All Assignments**  
Detailed assignment results  
[Homework](#)  
[Quizzes](#)  
[Tests](#)  
[Other](#)  
[\(Rename this category\)](#)
- ▶ **Overview By Student**  
Student averages for gradebook categories
- ▶ **Study Plan**  
Study Plan progress per student
- ▶ **Performance by Chapter**  
Overall class performance for book chapters

In the Gradebook table, navigate to the assignment you would like to analyze. Click the **IA** icon at the top of the assignment column.

<b>Class Roster</b>	<b>Overall Score</b>	<b># of Results</b>	<b>Section 5.5 PRACTICE</b>	<b>Section 5.5 ASSESS</b>	<b>Section 5.6 LEARN</b>	<b>Section 5.6 PRACTICE</b>	<b>Section 5.6 ASSESS</b>
Assignment Weight	-	-	3 pt	6 pt	1 pt	3 pt	6 pt
Class Average	61.5%	--	69.5% <b>IA</b>	71.2% <b>IA</b>	67.7% <b>IA</b>	71.9% <b>IA</b>	67.8% <b>IA</b>
Class Median	78%	--	100%	100%	100%	100%	100%
# of Results	--	2236	19	18	22	18	19
			<a href="#">Change Scores</a>				

If you clicked this icon for a quiz or test that had more than one attempt allowed, you will be asked to choose which results you want to include in the question statistics.

**Item Analysis** [Legend](#)

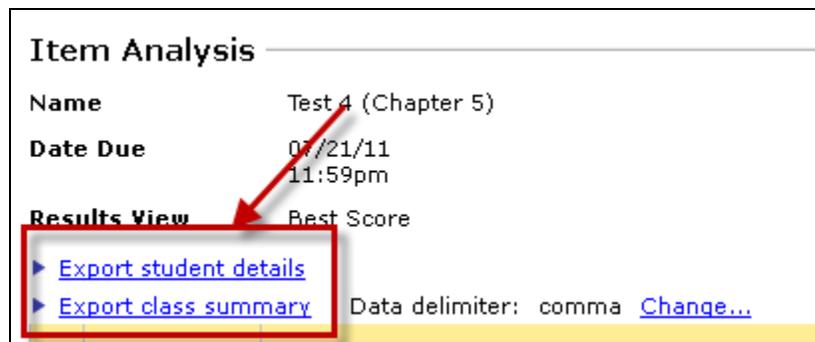
Choose which results you would like to include in the Question Statistics:

- All attempts for all students (student detail export not available)
- One attempt per student based on their Best Score attempt
- One attempt per student based on their Most Recent attempt

Select one of the options and click OK to display the Item Analysis for the assignment.

Item Analysis								<a href="#">Legend</a>  
<b>Name</b>		Test 4 (Chapter 5)			<b># of students submitted</b>			15
<b>Date Due</b>		07/21/11 11:59pm			<b>total # of attempts</b>			22
<b>Results View</b>		Best Score						Results submitted by an instructor are not included in this data.
<a href="#">Export student details</a>								
<a href="#">Export class summary</a>		Data delimiter: comma <a href="#">Change...</a>						
#	Question ID	Objective	Correct	Partial Credit	Incorrect	Not Attempted	Avg Time Spent	Median Time Spent
1	5.1.41	Factor out the greatest common factor.	12	0	2	1	2m 27s	<a href="#">show median</a>
2	5.1.69	Factor by grouping.	14	0	1	0	2m 52s	<a href="#">show median</a>
3	5.2.27	Factor trinomials with a coefficient of 1 for the squared term.	13	0	2	0	2m 8s	<a href="#">show median</a>
4	5.2.35	Factor trinomials with a coefficient of 1 for the squared term.	13	0	1	1	2m 8s	<a href="#">show median</a>
5	5.2.39	Factor trinomials with a coefficient of 1 for the squared term.	14	0	0	1	2m 49s	<a href="#">show median</a>
6	5.3.31	Factor trinomials completely.	11	0	3	1	2m 46s	<a href="#">show median</a>
7	5.3.37	Factor trinomials completely.	8	0	5	2	3m 20s	<a href="#">show median</a>
8	5.3.57	Factor trinomials completely.	7	0	7	1	6m	<a href="#">show median</a>
9	5.4.7	Factor a difference of squares	12	0	2	1	1m 15s	<a href="#">show median</a>

For each question in the assignment, you can see how many students answered the question correctly/incorrectly, received partial credit, or did not attempt the question. You can also view the average and median time spent on that question. At the top left of the page, click Export class summary to export the class summary to a .csv file.



Click Export student details to view details on how each student performed on the assignment. The data is downloaded to a .csv file so that you can view it using a spreadsheet application. An example is shown below.

	B	C	D	E	F	G	H	I	J	K	L	M
1	Homework 1			# of studer	6							
2												
3												
4				#	1		2		3		4	
5				Exercise 1	1.1.5		1.1.7		1.1.9		1.1.11	
6				Objective	Give the meaning of d		Give the meaning of d		Convert between stan		Convert between stan	
7				# Points	1		1		1		1	
8												
9	First name	email	login		Score	# attempts	Score	# attempts	Score	# attempts	Score	# attempts
10	lisa	lbrown@cc	lisabrown		1	1	1	1	0.8	1	1	1
11	red	rcrawfish@	redcrawfish		1	1	1	1	0.5	1	0.4	1
12	williams	gwilliams@	georgewilliams		1	1	1	1	0.5	1	1	1
13	jill	jhahn@col	jillhahn		1	1	1	1	0.8	1	1	1
14	geiger	kgeiger@c	kimgeiger	inc		0	1	1	1	1	0.8	1
15	happy	hjamalaya	happyjambalaya		1	1	1	1	0.5	1	1	1
16	heijungkim	hkim@coll	heijungkim									
17												
18				# Correct	5		6		1		4	
19				# Partial C	0		0		5		2	
20				# Incorrect	0		0		0		0	
21				# Incomple	1		0		0		0	

## Analyzing results by student

The individual student view of the Item Analysis page lets you analyze how an individual student performed on each question in a selected assignment. You can also view how students performed on each attempt at a quiz or test, and how many times a student attempted each question in a homework assignment.

In the Gradebook, click on a student's name to open the student's Results page.

**Gradebook Views**

[▶ All Assignments](#)   
 [▶ Overview By Student](#)   
 [▶ Study Plan](#)   
 [▶ Performance by Chapter](#)

Detailed assignment results  
[Homework](#)  
[Quizzes](#)  
[Tests](#)  
[Participation](#)  
 (Rename this category)

Student averages for gradebook categories

Study Plan progress per student

Overall class performance for book chapters

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**Class Roster**   
 [All Students](#)   
 [A-E](#)   
 [F-J](#)   
 [K-O](#)   
 [P-T](#)   
 [U-Z](#)

[Student, Demo](#)

In the Results page, select Item Analysis from the Actions dropdown list for an assignment, and click Go.

Results from entire course to date.		Correct/Total	Score	Time Spent	Date Worked	Actions
	Final Exam grade (Chapters 1 to 5) (Offline)	36/100	36%		07/22/11	-- Choose -- Go
	Week 8 Participation Grade (Offline)	3/5	60%		07/21/11	-- Choose -- Go
	Week 7 Participation Grade (Offline)	3/5	60%		07/18/11	-- Choose -- Go
	Test 4 (Chapter 5) <a href="#">Review</a>	17/25	68%	1h 40m 36s	07/17/11 11:33pm	-- Choose -- Go
	Test 4 Review <a href="#">Review</a>	25/25	100% (omitted)	4h 15m 22s	07/17/11 9:36pm	-- Choose -- Go
	Test 4 (Chapter 5) <a href="#">Review</a>	17.6/25*	70.4%	2h 11m 12s	07/15/11 8:21pm	Item Analysis Change Score Print Go
	Section 5.6 ASSESS <a href="#">Review</a>	9/9	100%	16m 2s	07/14/11	Print Go

The Item Analysis page shows you how the student performed on each question in the assignment. Below is an example of the Item Analysis page for a quiz or test.

**Item Analysis** [Legend](#)

Score for this attempt: **68%**

#	Order in Test	Question ID	Objective	Correct	Partial Credit	Incorrect	Not Attempted	Avg Time Spent
1	1	5.1.41	Factor out the greatest common factor.	1	0	0	0	2m 47s
2	2	5.1.69	Factor by grouping.	1	0	0	0	1m 48s
3	3	5.2.27	Factor trinomials with a coefficient of 1 for the squared term.	0	0	1	0	7m 56s
4	4	5.2.35	Factor trinomials with a coefficient of 1 for the squared term.	1	0	0	0	7m 31s
5	5	5.2.39	Factor trinomials with a coefficient of 1 for the squared term.	1	0	0	0	3m 29s
6	6	5.3.31	Factor trinomials completely.	1	0	0	0	5m 29s
7	7	5.3.37	Factor trinomials completely.	1	0	0	0	4m 9s

The Item Analysis page for a homework assignment also shows you the number of versions the student completed on each question.

**Item Analysis** [Legend](#)  

Score for this attempt: **100%**

#	Question ID	Objective	Correct	Partial Credit	Incorrect	Not Attempted	Completed Attempts	Time Spent
1	5.5.11	Solve quadratic equations by factoring.	1	0	0	0	1	1m 48s
2	5.5.13	Solve quadratic equations by factoring.	1	0	0	0	1	32s
3	5.5.15	Solve quadratic equations by factoring.	1	0	0	0	1	39s
4	5.5.17	Solve quadratic equations by factoring.	1	0	0	0	1	1m 49s
5	5.5.27	Solve quadratic equations by factoring.	1	0	0	0	2	4m 39s

You can also get to the Item Analysis page for a student's assignment by clicking the score for the assignment in the Gradebook table.

<a href="#">Class Roster</a>	<a href="#">Average</a>	<a href="#"># of Results</a>	<a href="#">Section 4.7 PRACTICE</a> 3 pt	<a href="#">Section 4.7 ASSESS</a> 6 pt	<a href="#">Test 3 Review</a> 10 pt	<a href="#">Section 5.1 LEARN</a> 1 pt	<a href="#">Section 5.1 PRACTICE</a> 3 pt
Class Average	78.6%	--	<a href="#">70.2%</a> <a href="#">IA</a>	<a href="#">76.4%</a> <a href="#">IA</a>	<a href="#">See all scores</a> <a href="#">IA</a>	<a href="#">81.8%</a> <a href="#">IA</a>	<a href="#">76.3%</a> <a href="#">IA</a>
Class Median	97.9%	--	100%	100%	--	100%	100%
# of Results	--	1950	21 <a href="#">Change Scores</a>	22 <a href="#">Change Scores</a>	-- <a href="#">Change Scores</a>	22 <a href="#">Change Scores</a>	22 <a href="#">Change Scores</a>
	88.9%	86	<a href="#">100%</a>	<a href="#">100%</a>	omitted	<a href="#">100%</a>	<a href="#">89.3%</a>
	98%	90	<a href="#">100%</a>	<a href="#">80%</a>	omitted	<a href="#">100%</a>	<a href="#">100%</a>
	99.1%	90	<a href="#">100%</a>	<a href="#">100%</a>	omitted	<a href="#">100%</a>	<a href="#">100%</a>
	100%	90	<a href="#">100%</a>	<a href="#">100%</a>	omitted	<a href="#">100%</a>	<a href="#">100%</a>

In the Results Analysis Data page, click the Item Analysis button at the top left.

**Name:** Section 5.5 PRACTICE

[Results](#) [Item Analysis](#)

Gradebook score for this assignment: **100%**

<b>Results for Section 5.5 PRACTICE</b>		<b>Correct/Total</b>	<b>Score</b>	<b>Time Spent</b>	<b>Date Worked</b>	<b>Actions</b>
	Section 5.5 PRACTICE	<a href="#">Review</a>	20/20	100%	40m 28s	07/12/11 10:31pm
						-- Choose -- <input type="button" value="Go"/>

**Results Analysis Data** [Legend](#)  

**Name:** Section 5.5 PRACTICE

[Results](#) [Item Analysis](#)

Gradebook score for this assignment: **100%**

#	Question ID	Objective / Book Association	Correct	Partial Credit	Incorrect	Not Attempted	Completed Attempts	Avg Time Spent
1	5.5.11	Solve quadratic equations by factoring.	1	0	0	0	2	3m 23s
2	5.5.13	Solve quadratic equations by factoring.	1	0	0	0	1	24s
3	5.5.15	Solve quadratic equations by factoring.	1	0	0	0	2	47s