

Fostering Growth Mindsets

Implementing Standards-Based Grading in College Algebra

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Sectional Meeting
Louisiana/Mississippi
Mathematical Association of America
February 22, 2025



Metrics

Question

What do you **want** grades to measure?



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What do you **want** grades to measure?

- I. The student's understanding of the material.



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1. The student's understanding of the material.
2. Our confidence in the student's ability to succeed in future endeavors that rely on the material.



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2. Our confidence in the student's ability to succeed in future endeavors that rely on the material.
 - Undergraduate courses.
 - Graduate school.
 - Jobs.



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- ▶ When a student had a bad day.



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- ▶ How long it took a student to learn the material.
- ▶ How well a student is making the transition from high school to college.
- ▶ When a student had a bad day.
- ▶ How adept a student is at stringing together partial credit.



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 - Students have multiple opportunities to display mastery of the course material.
- ▶ Forgetful
 - Failure is part of the learning process.
 - Students **should** be able to learn from failure.
 - This is only possible if students are **not** doomed to failure by past mistakes.



College Algebra

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College Algebra

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- ▶ Mastery of standards tested using in-class, written assessments, and MyMathLab homework assignments.

Example Standard

4.I.I I can identify an exponential function, its domain, its range, and whether it represents growth or decay. I can use this information to graph an exponential function.



College Algebra

- ▶ Assessments contained a section with at least one problem for each standard that had been covered.



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- ▶ Assessments contained a section with at least one problem for each standard that had been covered.
- ▶ Each standard was scored using the following scale and students could attempt any standard not previously mastered.

Score	Description
Mastery	Core understanding is solid with no errors or with trivial, easily correctable errors.
Progress	Core understanding is evident, but with gaps or non-trivial mistakes.
Needs Improvement	Significant gaps or errors in core understanding.



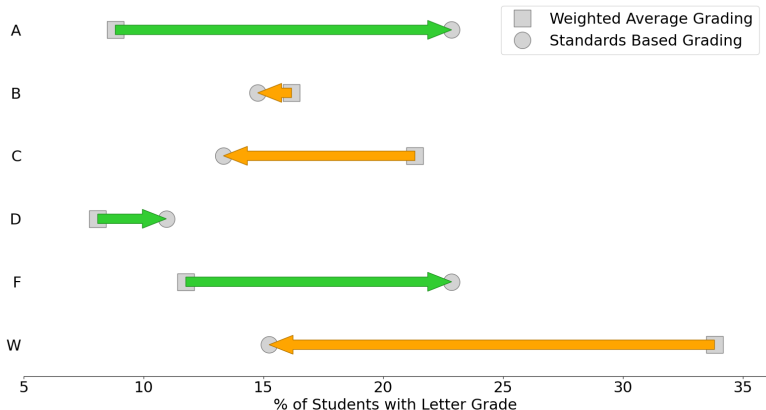
College Algebra

Grading Scale

			MyMathLab Average				
			90% - 100%	80% - 89%	70% - 79%	60% - 69%	< 60%
# Standards Mastered	22 - 25		A	B	B	B	C
	19 - 21		B	B	C	C	D
	16 - 18		C	C	C	D	D
	13 - 15		D	D	D	D	F
	< 13		F	F	F	F	F

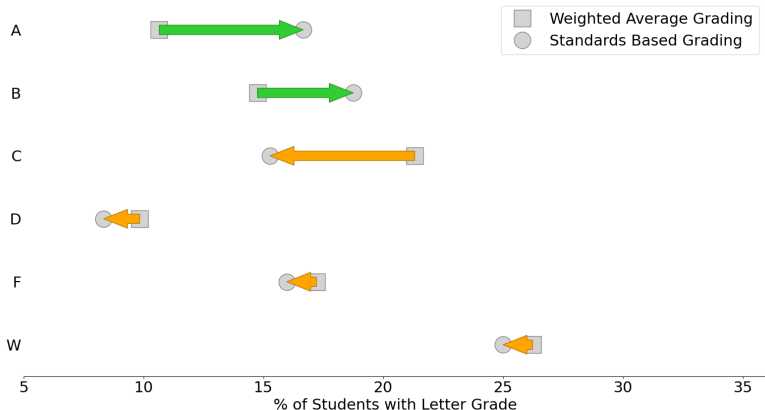


Performance in College Algebra (2021-2022)



- ▶ 50.95% of students in SBG courses passed.
- ▶ 46.32% of students in WAG courses passed.

Performance in Next Math Course



- ▶ 50.69% of students in SBG courses passed their next math course.
- ▶ 46.72% of students in WAG courses passed their next math course.

Resources

Thank you!

- ▶ Sample Materials
- ▶ Community Resources
- ▶ Meetings and Workshops
- ▶ Scholarly Articles
- ▶ <https://blakefarman.phd/sbg-resources>

