McGraw Hill Education

ALEKS®

Learning That's as Unique as Every Student

Personalized Learning for 6–12 Mathematics

ALEKS®

Teach Math the Way Students Learn

ALEKS® is an online math solution for sixth through twelfth grade that uses artificial intelligence to identify and provide instruction on the topics each student is most ready to learn. It's an approach proven to create math confidence and measurable success.

Differentiation for Each Student

ALEKS helps each student meet rigorous standards with differentiated instruction specific to their unique needs by creating an individualized learning experience that is:

Personalized

ALEKS creates personalized learning pathways that lead every student to mastery with periodic assessments to pinpoint knowledge gaps.

Focused

ALEKS uses adaptive technology to offer each student a selection of topics they are most ready to learn. Students are challenged, but never frustrated or bored.
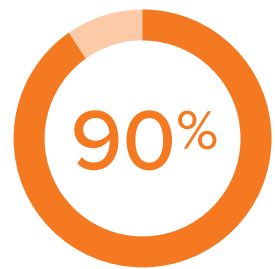
Insightful

ALEKS provides actionable data to guide instruction with customizable reports that show student progress, mastery, and time on task. With *ALEKS*, it's easier than ever to provide students with individualized instruction based on their unique needs.

The Power of Research-Based Learning

Cutting-edge cognitive research has changed what we know about learning and has inspired the creation of technology-based tools to make learning more effective.

90%

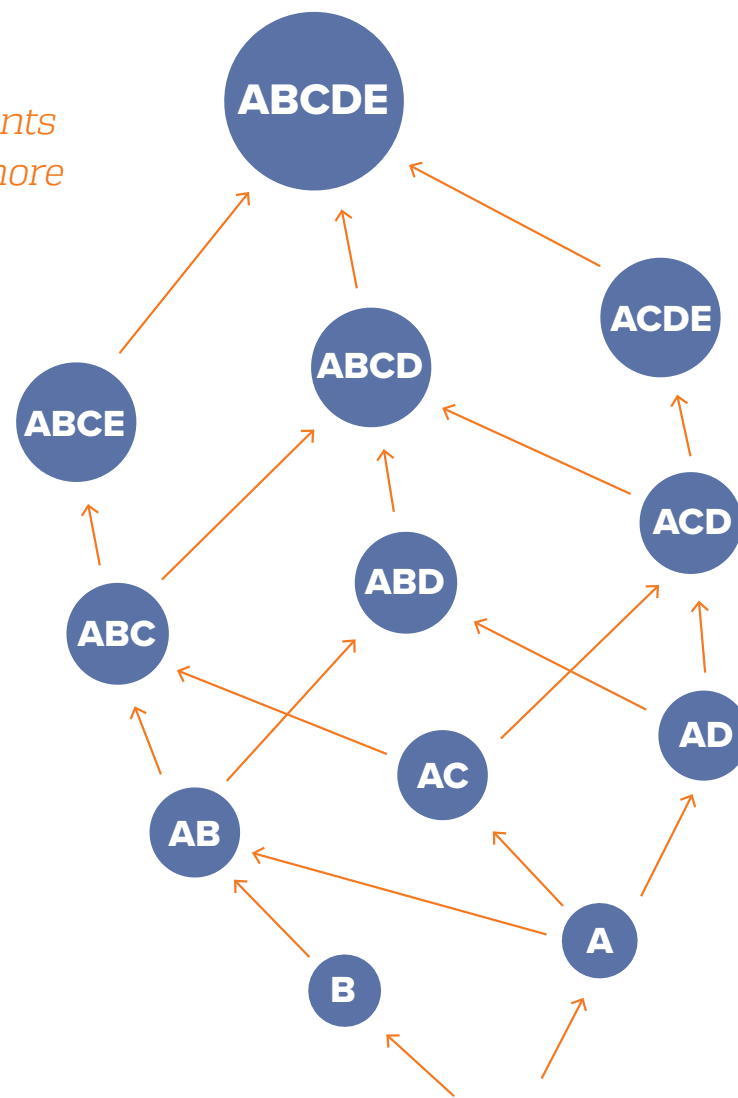*With ALEKS®, students achieve mastery more than 90 percent of the time.*

Designed to Ensure Mastery

ALEKS maps each student's evolving knowledge state and continuously refines the way topics are connected to each other. By presenting the topics a student is most ready to learn next, *ALEKS* ensures a mastery rate of more than 90 percent.

Developed by Cognitive Scientists

ALEKS is the product of decades of research conducted at top universities with support from the National Science Foundation. Its unique approach to math instruction is based on a concept called Knowledge Space Theory, which holds that:

- Knowledge is not linear; it's a complex web of interrelated topics.
- Every learner makes their own unique connections within this complex web and navigates it differently.
- Understanding how a student learns and creating unique learning pathways can accelerate concept mastery while reducing frustration and fatigue.

Meet State and National Standards

By combining adaptive learning technology and comprehensive progress monitoring, *ALEKS* accommodates the unique learning style of each student while still aligning with state and national standards to maximize results.

Focused, Differentiated Instruction

Dynamic instruction, differentiation, and flexible reporting options keep students and educators on track:

- **Regular Knowledge Checks** provide robust data essential for focused instruction.
- **An open-response environment** that gives educators a clear picture of student understanding.
- **Adaptive learning technology** that uses Knowledge Check results to pinpoint the unlearned concepts most crucial for students to know.

> **"Teachers and students like *ALEKS*. Students like the goal-setting in the program, and teachers like being able to set incentives."**
> *— Math Curriculum Coordinator, Clute, TX*

Detailed Data

Real-time reporting allows educators to:

- Measure progress at the student, class, school, and district levels.
- View progress and ready-to-learn topics related to a specific math standard.
- Gain insight on how students may perform on standardized assessments and remediate potential knowledge gaps.
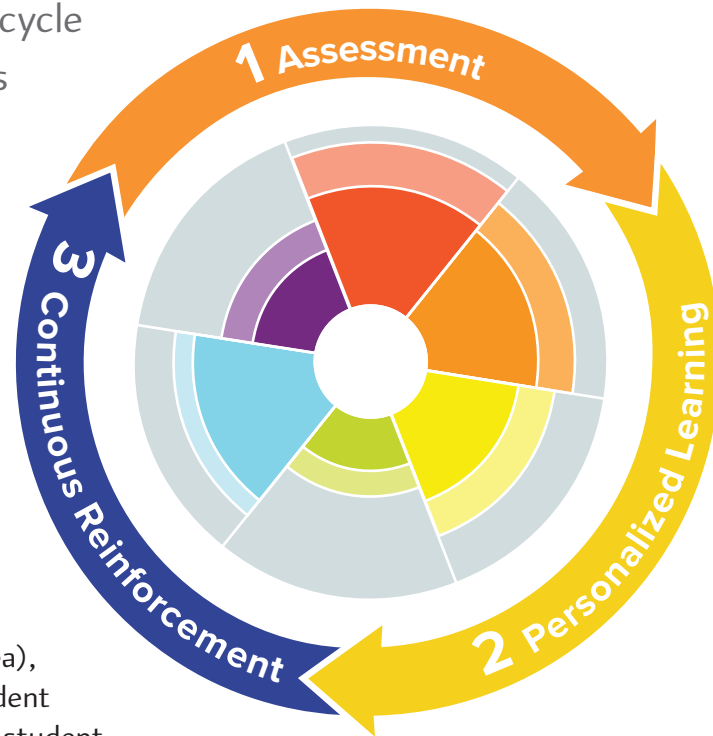
∨ *Aligned to state and national standards.*

Current Progress

ALEKS Table of Contents	Standards

View Course Content by Standards
Current Standards: **Common Core State Standards for Grade 7 (2010)**(View Different Standards)

view all topics / hide all topics ⓘ

▼ **7.rp: Ratios & Proportions**

Progress 35%

	Progress ⓘ	Remaining ⓘ	Ready to Learn ⓘ	Attempted, Not Yet Learned ⓘ

7.RP.A.1: Compute unit rates associated with ratios of fractions (Progress 5%)

There are 2 ALEKS topics that correspond to this standard.

• Word problem on unit rates associated with ratios of fractions	9%	91%	13%	0%

4 students out of 32 (13%) are **Ready to Learn** this topic.

✉ **Message Students** ✕

Bourbaki, Maria
Walker, Jennifer P.
Walker, Jose
Walker, Robert S.

(0) Other topics that these students are **Ready To Learn**
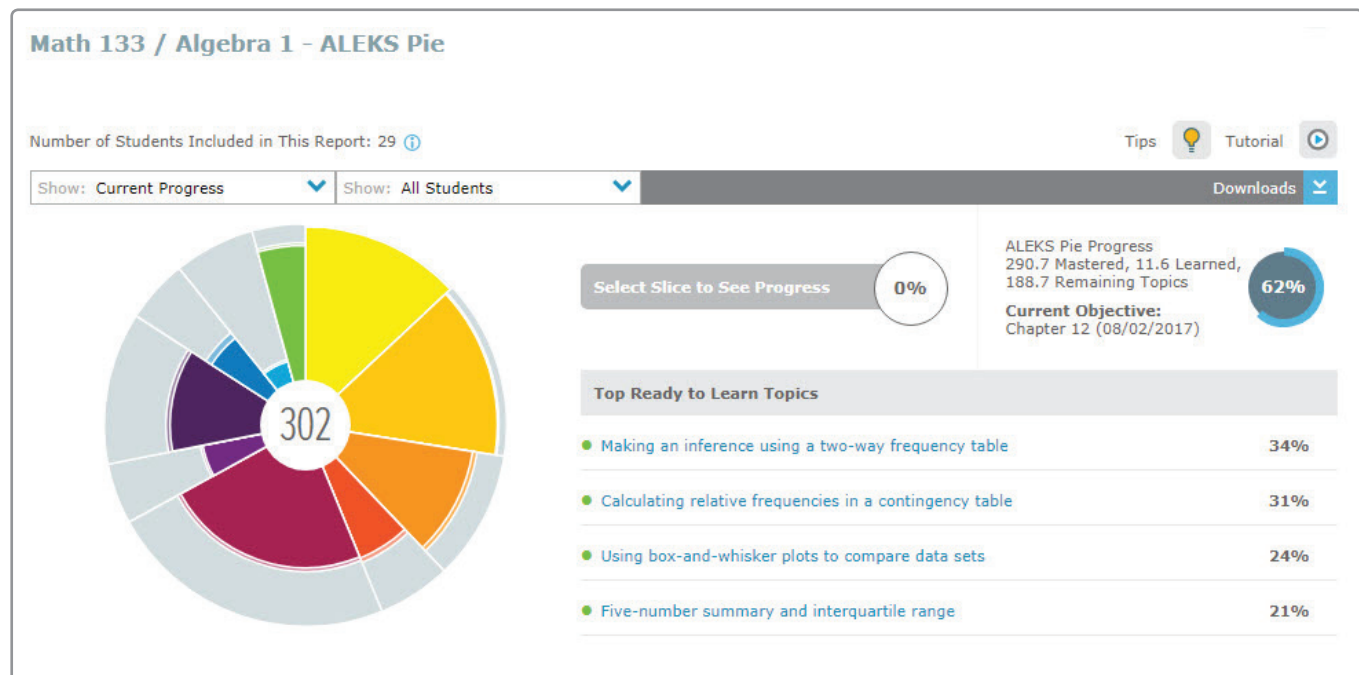
How *ALEKS*® Creates Personalized Instruction

ALEKS delivers a powerful three-phase cycle of learning and assessment that targets the unique needs of every student.

1 Assessment
2 Personalized Learning
3 Continuous Reinforcement

1 Assessment

Students begin with an Initial Knowledge Check to accurately measure what they know, don't know, and what concepts they are ready to learn next. The results are summarized in the *ALEKS* Pie, a tool that provides insight on student knowledge across multiple topics. Within each pie slice (topic area), the colored section shows what a student knows. The gray area shows what the student has left to learn.
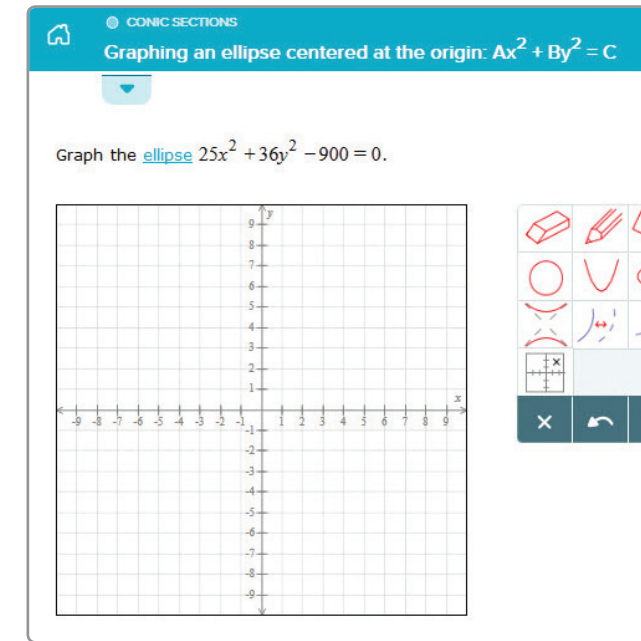
2 Personalized Learning

As students work through their ready-to-learn topics, *ALEKS* provides immediate feedback, detailed explanations, definitions, and other tools for building mastery.

ALEKS offers:

- A unique problem algorithm that generates a different leveled problem set for every student, every time.
- Detailed explanations for every problem including a dictionary and video resources.
- Open-response problems and intuitive input tools within Learning Mode that provide a more authentic measure of conceptual understanding.
- Content aligned to state and national standards.

⌃ *Students can demonstrate skills mastery in Learning Mode by using tools to solve open-response problems.*

3 Continuous Reinforcement

As students learn new topics, *ALEKS* periodically rechecks their knowledge to ensure retention. The system then provides remediation for topics students have not successfully mastered.

The power of *ALEKS,* in Spanish

Located at the top of every page, the English-Spanish toggle lets students click to switch back and forth from English to Spanish instruction. The translation includes the entire program interface as well as all of its contents.

⌄ *The ALEKS Pie provides teachers with an in-depth analysis on how each student is progressing on multiple topics.*

"**After using *ALEKS* for a year, our Algebra Readiness 8th graders more than doubled the increase in CST score that's typically seen at our school. Moreover, 56 percent of these students scored at least Proficient, compared to the usual 40 percent.**"

— *Teacher, Big Bear Lake, CA*

If Every Student Learns Math Differently—Why Should Their Math Instruction Be the Same?

ALEKS® provides each student with a personalized pathway to math proficiency.

By combining assessment, personalized learning, and continuous reinforcement, *ALEKS* adapts to the individual needs of each student and customizes a unique learning pathway to help accelerate them to standard mastery. This three-phase cycle keeps students engaged by challenging each learner precisely at their level with concepts they are ready to learn, thus eliminating boredom and frustration.

To learn more, visit ALEKS.com/k12

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