

# enVision A|G|A Differentiation

## *Disclaimer*



**Please Note:** your program screens may look different from the images in these training materials due to our rebrand to Savvas Learning Company.

**Introduction**

A banner with a blue background and white stars. The text "enVision" is in a large, bold, sans-serif font, followed by "A|G|A" in a smaller, outlined font. Below this, the word "Differentiation" is written in a white, sans-serif font. To the left of the text, there is a small icon of a person with a lightbulb above their head. Below the text, there is a photograph of a diverse group of students sitting around a table in a classroom, engaged in a discussion. The text "Differentiated instruction resources" is written in a bold, sans-serif font, with "resources" in a larger font size. Below this, the text "Reach the range of learners in your classroom" is written in a smaller, sans-serif font.

**enVision** A|G|A  
Differentiation

Differentiated instruction  
**resources**

Reach the range of learners  
in your classroom

Hi, **enVision** A|G|A teachers!

Let's look at the variety of resources available for differentiated instruction at both the topic and lesson levels. These resources can help you reach the range of learners in your classroom.

**Quick Tip**

**DIFFERENTIATED INSTRUCTION AND INTERVENTION**
Built-in resources for supporting all learners!

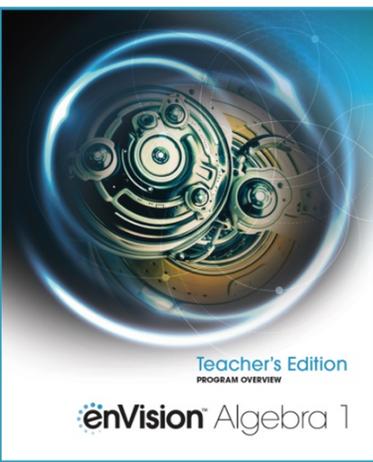
**Powerful System- and Teacher-Driven Resources**

- Use enVision A|G|A resources to provide a comprehensive personalized solution to meet the needs of all levels of learners and provide intervention activities.
- Customize lessons by uploading your own resources.



Includes DOK (Depth of Knowledge)

	DIFFERENTIATION RESOURCES	WHERE TO FIND
<b>ONGOING INTERVENTION</b>  1 RIT	During a LESSON Teacher Driven <ul style="list-style-type: none"> <li>Adaptations for below- and above-level students</li> <li>Common Errors</li> </ul>	Teacher's Edition, print and digital
<b>STRATEGIC INTERVENTION</b>  2 RIT	At the end of a LESSON System and Teacher Driven <ul style="list-style-type: none"> <li>Differentiation Library</li> <li>Reteach to Build Understanding</li> <li>Mathematical Literacy and Vocabulary</li> <li>Additional Practice</li> <li>Enrichment Activities</li> <li>Online Practice with built-in Learning Aids powered by MathIX<sup>SM</sup> for School</li> <li>Adaptive Practice and Homework powered by Knowton</li> <li>Virtual Nerd Tutorial Videos</li> </ul>	Teacher Resource Masters, available as downloadable PDFs and downloadable Word docs, and digital  Pearson-Realize.com
<b>INTENSIVE INTERVENTION</b>  3 RIT	As needed ANYTIME during a Topic System and Teacher Driven <ul style="list-style-type: none"> <li>Personalized Study Plans</li> <li>Virtual Nerd Tutorial Videos</li> <li>Online Practice with built-in Learning Aids powered by MathIX for School</li> </ul>	Pearson-Realize.com



Teacher's Edition  
PROGRAM OVERVIEW  
**enVision Algebra 1**



Check out the Differentiation Resources chart in your *Teacher's Edition Program Overview* for a list of the enVision A|G|A differentiation resources and where to find them in the program materials.

## Topic-level Differentiation

The screenshot displays the 'Solving Equations and Inequalities' topic page. A table of contents lists the following sections:

Section	Page
Topic Overview	2A
Topic Overview	2-3
<b>enVision STEM</b>	
I-1 Operations on Real Numbers	5A
I-2 Solving Linear Equations	11A
I-3 Solving Equations With A Variable on Both Sides	18A
I-4 Literal Equations and Formulas	24A
I-5 Solving Inequalities in One Variable	30A
<b>CCC Mathematical Modeling in 3 Acts: Collecting Cans</b>	
I-6 Compound Inequalities	37A
I-7 Absolute Value Equations and Inequalities	43A
Topic Review	50
Topic Assessment	53A
Topic Performance Assessment	53C

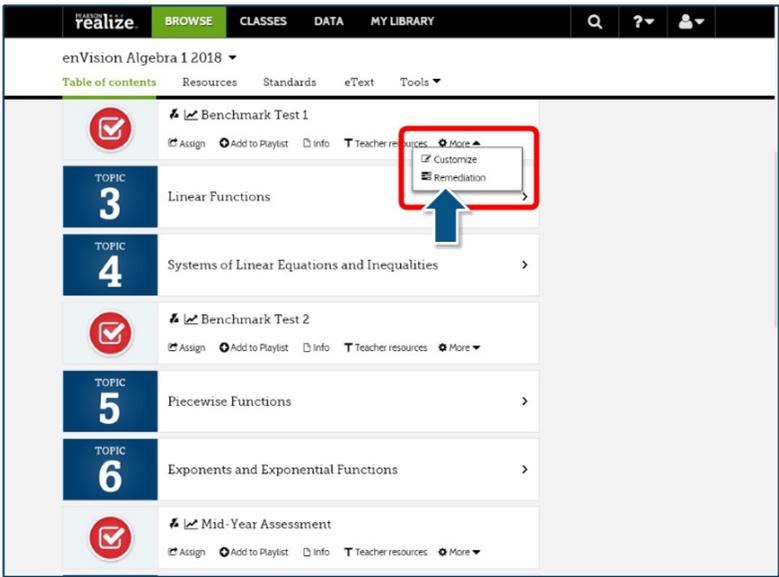
Callouts in the image point to the 'enVision™ STEM Project' and 'Mathematical Modeling in 3 Acts lesson' sections.

There are several topic-level opportunities to differentiate instruction for your students.

The Topic Readiness Assessment determines your students' readiness for the topic content and prescribes interventions as needed. The digital version of the assessment is auto-scored, and a personalized study plan is generated for each student based on his or her score. Students receive practice tasks in their Savvas Realize™ accounts tailored to their specific needs based on the results of the online assessments.

Each topic also includes an **enVision™** STEM Project and a Mathematical Modeling in 3 Acts lesson. These activities make math inviting with high-interest, low-entry tasks. Students can choose how they show what they know as they work on these tasks.

### Quick Tip



The screenshot shows the Savvas Realize interface for 'enVision Algebra 1 2018'. The navigation bar includes 'BROWSE', 'CLASSES', 'DATA', and 'MY LIBRARY'. Below the course title, there are tabs for 'Table of contents', 'Resources', 'Standards', 'eText', and 'Tools'. The main content area lists several assessments and topics. The first assessment is 'Benchmark Test 1', followed by 'TOPIC 3 Linear Functions', 'TOPIC 4 Systems of Linear Equations and Inequalities', 'Benchmark Test 2', 'TOPIC 5 Piecewise Functions', 'TOPIC 6 Exponents and Exponential Functions', and 'Mid-Year Assessment'. A red box highlights the 'More' dropdown menu for the 'Benchmark Test 1' assessment, which contains the options 'Customize' and 'Remediation'. A blue arrow points to the 'Remediation' option.

**QUICK TIP** Click the **Remediation** option under online assessments to see a list of the remediation resources you can use to differentiate instruction based on your students' results.

## *Lesson-level Differentiation*



**Four-step** lesson structure

- Step 1 Explore
- Step 2 Understand & Apply
- Step 3 Practice & Problem Solving
- Step 4 Assess & Differentiate

You'll find differentiation resources and tips in each step of a four-step **enVision A|G|A** lesson.

## Step 1: Explore

**CRITIQUE & EXPLAIN**

**INSTRUCTIONAL FOCUS** Students use their knowledge of number classification to focus on characteristics that groups of real numbers have in common. They consider sets of real numbers and the relationship between rational and irrational numbers.

**STUDENT COMPANION** Students can complete the Critique & Explain activity on page 1 of their Student Companion.

**Before** **WHOLE CLASS**

**Problem Solving**

Q: What do you notice about the numbers shown on the game cards? (They include whole numbers, decimals, fractions, ...)

**During** **SMALL GROUP**

**Mathematics**

Q: In what ways are Cindy's numbers similar? Different? (Cindy's numbers are all rational numbers. One number is a decimal, one is a fraction, and one is a whole number.)

Q: In what ways are Victor's numbers similar? Different? (Victor's numbers are also all real numbers, two are irrational and one is rational.)

**For Early Finishers**

Have students make cards similar to those shown. They can make additional rules and play the game.

Q: Were you successful in getting three in a row? What type of ...

**After** **WHOLE CLASS**

Facilitate a discussion about the characteristics of types of numbers and how they impact the game.

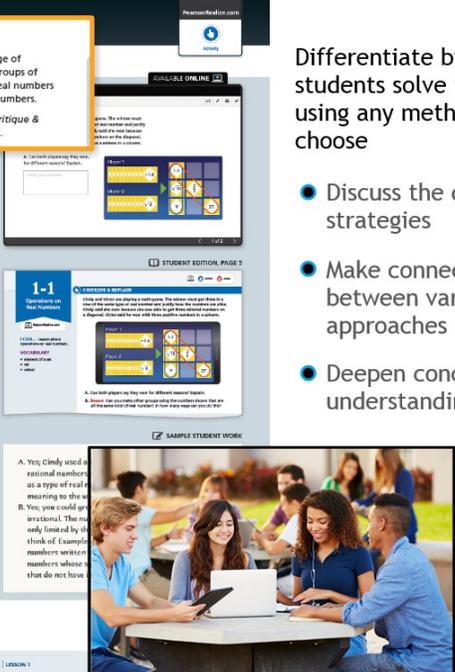
Q: If you could only win the game with three irrational numbers in a row, how could you use the number cards shown to win the game? (You could replace 1.3 with  $\sqrt{2}$ .)

**HABITS OF MIND**

**Construct Arguments** Cindy says that  $\frac{1}{2}$  is an irrational number because the decimal form doesn't terminate. Construct an argument to support or refute Cindy's position. (It is true that the decimal form doesn't terminate. However, repeating decimal representations have a rational form.)

Differentiate by letting students solve the problem using any method they choose

- Discuss the different strategies
- Make connections between various approaches
- Deepen conceptual understanding



In Step 1: Explore, differentiate instruction by letting students solve the problem-based learning activity using any method they choose.

As you and your students discuss the different strategies used to solve the problem, students can make connections between various approaches and deepen their conceptual understanding.

The Teacher's Edition provides support to facilitate these conversations before, during, and after the activity.

## Step 2: Understand & Apply

**Differentiate instruction using the support notes**

**STEP 2** Understand & Apply

**EXAMPLE 4** Operations With Rational and Irrational Numbers

**ADVANCED STUDENTS**

**USE WITH EXAMPLE 2** Have students explore creating equations for consecutive even or odd integer problems.

- The sum of three consecutive even integers is 108.
- The sum of three consecutive odd integers is 87.

**Q:** What expression represents three consecutive even integers?  
Three consecutive odd integers?  
[ $x + (x + 2) + (x + 4)$ ]

**Q:** Why are these expressions the same?  
[Consecutive even integers and consecutive odd integers both have differences of 2.]

**Q:** What is the solution to each problem?  
[34, 36, 38; 27, 29, 31]

**STRUGGLING STUDENTS**

**USE WITH EXAMPLE 4** Help students translate the verbal descriptions of problems into equations.

Carlos is 5 times 3 less than Sofia's age. Carlos is 40 years old. How old is Sofia?

**Q:** What does the variable represent in this situation?  
[Sofia's age]

**Q:** What operation does *less than* mean? *Times*?  
[subtraction; multiplication]

**Q:** What expression represents Carlos's age?  
[ $5(x - 3)$ ]

**Q:** What equation represents this situation?  
[ $5(x - 3) = 40$  because each side represents Carlos's age.]

**Q:** How old is Sofia?  
[11]

**ELL: English Language Learners** (Use with EXAMPLE 3)

**LISTENING (BEGINNING)** Read Part A of the example, up through the sentence that contains the word *whether*, aloud to students. Repeat the last sentence.

**Q:** What do you think of when you hear the word *whether*?  
[Expect responses related to weather.]

**Q:** Weather, meaning hot, cold, or rainy has a word with the same sound but a different meaning. Listen to the sentence again. What do you think *whether* means in this context?  
[if]

**SPEAKING (INTERMEDIATE)** Make sure students understand the everyday use of words in math. Have students talk with a partner about the word cases.

**Q:** What is a case?  
[Answers may vary. Sample: something that you carry or store things in; different situations]

**Q:** What does it mean to *try several different cases* in this example?  
[To try adding (or multiplying) different rational numbers to see if the idea works: that the sum (or product) of two rational numbers will always be a rational number.]

**WRITING (ADVANCED)** Talk about the difference between specific cases and general cases. Have students answer the following questions in their math journals.

**Q:** Why can't you make a conclusion after testing a few specific cases?  
[There could be a case you do not think of that disproves your conclusion.]

**Q:** How does the use of variables show the general case and help to establish a solid conclusion?  
[The variables are defined as integers and they show that no matter what integer is substituted for the variable, the result will follow the same pattern.]

Next, in Step 2: Understand & Apply, check for understanding using Examples, Try It! exercises, and Additional Examples.

Notice the support notes in your Teacher's Edition that can help you differentiate instruction for English language learners, advanced students, and struggling students.

Use the Do You Understand? and Do You Know How? as formative assessment opportunities to help you decide how much and what type of practice to assign students in Step 3.

**Step 3: Practice & Problem Solving**

The screenshot shows a math problem-solving interface. At the top, there is a navigation bar with a back arrow and the text "1-1: MathXL for School: Practice and Problem Solving". Below this, the problem ID "1.1.10" is displayed. The main content area contains the text: "Think About the Process Apply the Distributive Property first to solve the equation below. What operation would you need to use last? instead, you divide first to solve the equation what operation would you need to use last?". Below the text is the equation  $8\left(\frac{d}{2} - 8\right) = 80$ . A question follows: "If you apply the Distributive Property first, what operation will you need to use last?". There are four radio button options: Multiplication, Subtraction, Division, and Addition. A red box highlights a "Question Help" menu that is open, showing options: "Help Me Solve This", "View an Example", "Video", "Textbook", "Glossary", "Math Tools", and "Print". Below the question, a message states: "Exercises are auto-scored and have built-in learning aids". At the bottom, there is a progress indicator showing "1 part remaining" with a blue bar, a "Clear All" button, and a "Check Answer" button. The footer shows "Review progress", "Question 1 of 36", and "Go" buttons, along with "Back" and "Next" navigation arrows.

Then, in Step 3: Practice & Problem Solving, assign differentiated practice to solidify student understanding. Use the Assignment Guide and Item Analysis to choose the amount and difficulty level of practice for groups of students.

Alternatively, you can assign the online version of Practice and Problem Solving to differentiate instruction. These exercises are auto-scored and have built-in learning aids to provide support to students.

**Quick Tip**

realize
BROWSE
CLASSES
DATA
MY LIBRARY

enVision Algebra 1 2018 ▾

[Table of contents](#) [Resources](#) [Standards](#) [eText](#) [Tools ▾](#)

**Practice & Problem Solving**

- 1-1: MathXL for School: Practice and Problem-Solving**  
Assign Add to Playlist Info Customize
- 1-1: MathXL for School: Mixed Review**  
Assign Add to Playlist Info Customize
- 1-1: Adaptive Practice Powered by Knewton**  
Powered by Knewton Assign Add to Playlist Info

**Assess & Differentiate**

- 1-1: Lesson Quiz**  
Assign Add to Playlist Info Teacher Resources More ▾
- 1-1: MathXL for School: Reteach to Build Understanding**  
Assign Add to Playlist Info Customize
- 1-1: Reteach to Build Understanding (PDF)**  
Assign Add to Playlist Info Teacher Resources

You can also assign Mixed Review practice powered by MathXL® for School or Adaptive Practice Powered by Knewton®. Both of these assignments are differentiated practice options that you can assign during Step 3 or Step 4.

*Knewton® is a registered trademark.*

## Step 4: Assess & Differentiate

The screenshot shows the Savvas Realize interface for 'enVision Algebra 1 2018'. The navigation bar includes 'BROWSE', 'CLASSES', 'DATA', and 'MY LIBRARY'. Below the navigation bar, there are tabs for 'Table of contents', 'Resources', 'Standards', 'eText', and 'Tools'. The main content area displays a list of resources:

- 1-1: MathXL for School: Enrichment (with 'Assign', 'Add to Playlist', 'Info', and 'Customize' options)
- 1-1: Enrichment (PDF) (with 'Assign', 'Add to Playlist', 'Info', and 'Teacher Resources' options)
- 1-1: Mathematical Literacy and Vocabulary (PDF) (with 'Assign', 'Add to Playlist', 'Info', and 'Teacher Resources' options)
- 1-1: Virtual Nerd™: What's an Irrational Number?** (with 'Assign', 'Add to Playlist', and 'Info' options) - This item is highlighted with a red box.

Below this list is a section titled 'Lesson Spanish Content' which includes:

- 1-1: MathXL for School en español: Práctica Y Resolución de Problemas (with 'Assign', 'Add to Playlist', 'Info', and 'Customize' options)
- 1-1: Prueba de la lección (with 'Assign', 'Add to Playlist', 'Info', and 'Teacher Resources' options)

The footer of the interface contains the text: 'Copyright © Pearson Education, Inc. or its affiliates. All Rights Reserved. User Agreement | Privacy Policy | Credits | rev. 8aadf35' and the 'PEARSON' logo.

Finally, in Step 4: Assess & Differentiate, administer the Lesson Quiz and then provide differentiation based on the results. Use the Item Analysis and Rtl information to prescribe differentiated assignments.

You'll find a library of resources on Savvas Realize.

You'll also find digital differentiated assignments powered by MathXL® for School and video tutorials powered by Virtual Nerd.

**Quick Tip**



You can assign the digital Lesson Quiz and have the system create differentiated assignments. The online version of the quiz is auto-scored, and you can choose to have the system provide auto-assigned intervention or enrichment activities for students based on their results.

**STEP 4 Assess & Differentiate**

**LESSON QUIZ**  
Use the Lesson Quiz to assess students' understanding of the mathematics in the lesson.  
Students can take the Lesson Quiz online or you can download a printable copy from PearsonRealize.com. The Lesson Quiz is also available in the Assessment Resources book.

**Item Analysis**

Item	DOK
1	1
2	2
3	1

**Use the student scores on the Lesson Quiz to prescribe differentiated assignments.**  
If students take the Lesson Quiz online, it will be automatically scored and appropriate differentiated practice will be assigned based on student performance.

Level	Points	Activities
<b>I</b> Intervention	0-3 points	<ul style="list-style-type: none"> <li>Reteach to Build Understanding</li> <li>Mathematical Literacy and Vocabulary</li> <li>Additional Practice</li> </ul>
<b>C</b> On-Level	4 points	<ul style="list-style-type: none"> <li>Mathematical Literacy and Vocabulary</li> <li>Additional Practice</li> <li>Enrichment</li> </ul>
<b>A</b> Advanced	5 points	<ul style="list-style-type: none"> <li>Enrichment</li> </ul>

**Lesson Quiz**  
Directions: In this Quiz, you will answer 5 questions.

1. To which subset of the real number system does the number 1.5 belong?  
 whole numbers  
 natural numbers  
 rational numbers  
 irrational numbers

2. Which of the following could be a rational number?  
  $\sqrt{2}$   
  $\sqrt{4}$   
  $\sqrt{3}$   
  $\sqrt{5}$

3. Which of the following is a rational number?  
  $\sqrt{2}$   
  $\sqrt{4}$   
  $\sqrt{3}$   
  $\sqrt{5}$

4. Which of the following is a rational number?  
  $\sqrt{2}$   
  $\sqrt{4}$   
  $\sqrt{3}$   
  $\sqrt{5}$

5. Without simplifying, determine which of the following represent a rational number. Select all that apply.  
  $\frac{1}{2}$   
  $\frac{1}{3}$   
  $\frac{1}{4}$   
  $\frac{1}{5}$

enVision Algebra 1 Assessment Resource

TOPIC 1 | 10A | LESSON 1

*Closing*



**enVision™ A|G|A**

*Thank You!*

Keep exploring MySavvasTraining.com for more information about **enVision A|G|A** and Savvas Realize.

**my SAVVAS Training**

Thanks for discovering how **enVision A|G|A** resources can help you differentiate instruction and provide targeted support to all your students.