

Iowa Algebra 2 Quizzes

Quick Topic Assessments with Answer Key

Dr. A. Nazari

Copyright © 2026 Dr. A. Nazari

Published by View Math Education

ViewMath.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

The information in this book is distributed on an “as is” basis, without warranty. While every precaution has been taken in the preparation of this work, neither the author nor the publisher shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this book.

Copyright © 2026



QUICK CHECKS FOR ALGEBRA 2 FOUNDATIONS

Algebra 2 Math Quizzes

Chapter 1 Topic Assessments • Fast Scoring • Answer Key

These short quizzes help students check the exact Algebra 2 foundation skill they just studied: real numbers, expression structure, equations, inequalities, formulas, and absolute value.

Each quiz is focused enough for class warm-ups, exit tickets, tutoring sessions, homework checks, or fast test-prep review.



One Skill

*each quiz stays
topic focused*



10-15 Min

*easy to fit into
a lesson block*



Answer Key

*answers with
quick explanations*



How to Use This Quiz Pack

A simple routine

- 1** *Pick the matching topic.* Use the table of contents to choose the quiz that matches the lesson.
- 2** *Give students one clean attempt.* Most quizzes work well as 10-15 minute checks.
- 3** *Score quickly.* Use the answer key to mark each item and note the score at the top of the quiz.
- 4** *Reteach the pattern, not just the problem.* Wrong signs, wrong interval endpoints, and missed distribution usually point to the next mini-lesson.

Flexible classroom uses

Exit Ticket
one topic check

Small Group
targeted practice

Retake Tool
show growth after review

 Short quizzes make progress visible without taking over the whole period.

Chapter 1 Quiz Tracker

Use this page to spot which foundation skills are ready and which ones need a short review before students move deeper into Algebra 2.

Quiz	Topic	Score	Retake
1	Real Number System and Set Notation		
2	Properties and Order of Operations		
3	Integer Exponents and Scientific Notation		
4	Evaluating Algebraic Expressions		
5	Simplifying Algebraic Expressions		
6	Solving Linear Equations		
7	Literal Equations and Formulas		
8	Linear Inequalities		
9	Compound Inequalities and Interval Notation		
10	Absolute Value Equations		
11	Absolute Value Inequalities		

★ Quick scoring guide

80-100% Ready for mixed practice or the next topic.

60-79% Review the missed question type, then retake.

Below 60% Reteach the skill in a small group before moving on.

Take Your Learning Online with ViewMath Academy!

For Parents, Teachers & Students

Love what you're reading? ViewMath Academy is your **free online companion** to this book — practice what you learn, track your progress, and master every topic!

-  **Topic Quizzes** — Test yourself on each topic right after you study it in this book
-  **Interactive Lessons** — Revisit any concept with online lessons that match each chapter
-  **Progress Tracking** — Watch your mastery grow as you work through the book
-  **Adaptive Practice** — Get more questions on topics where you need extra help
-  **Practice Tests** — When you're ready, take a full practice test and analyze your score online



Scan to visit ViewMath Academy

 [ViewMath.com/IA-Algebra2](https://www.viewmath.com/IA-Algebra2)

 Free to use • No downloads required • Works on any device



CHAPTER

1

Algebra 2 Foundations

★ *What's Inside* ★

Quiz 1: Real Number System and Set Notation 2



CHAPTER 1

Real Number System and Set Notation

Name: _____

Date: _____

★ Score: ____ / 8

1 Which number is irrational?

A. $\sqrt{64}$

B. $0.\overline{18}$

C. $\sqrt{45}$

D. $-\frac{13}{5}$

2 What is the most precise classification of $\sqrt{81}$?

A. natural number

B. integer but not whole

C. rational but not integer

D. irrational number

3 Write $\{x \mid -2 \leq x < 5\}$ in interval notation.

Interval notation: _____

4 Which interval represents all real numbers less than or equal to 3?

A. $(-\infty, 3]$

B. $(-\infty, 3)$

C. $[3, \infty)$

D. $(3, \infty)$

5 True or False: Every integer is a rational number.

 True False

6 Which statement describes $(-\infty, -1) \cup (4, \infty)$?

A. $x < -1$ and $x > 4$

B. $x < -1$ or $x > 4$

C. $-1 < x < 4$

D. $-1 \leq x \leq 4$

7 Use the number line. What interval is shown?



A. $[-3, 2]$

B. $(-3, 2]$

C. $[-3, 2)$

D. $(-\infty, -3) \cup (2, \infty)$



Find more at
ViewMath.com/IA-Algebra2



ViewMath.com

- 8 A student says $0.272727\dots$ is irrational because it never ends. What is the error?

Error: _____

PREVIEW



Get Online



Find more at
[ViewMath.com/IA-Algebra2](https://www.viewmath.com/IA-Algebra2)



CHAPTER

3

Functions, Transformations, and Inverses

★ *What's Inside* ★

Quiz 2: Function Notation and Evaluation 5



CHAPTER 3

Function Notation and Evaluation

Name: _____

Date: _____

★ Score: ____ / 8

1 If $f(x) = x^2 - 3x + 1$, find $f(-2)$.

A. -9

B. -1

C. 11

D. 3

2 If $g(x) = 2x - 5$, find $g(a + 1)$.

Expression: _____

3 Use the table to find $h(4)$.

x	-2	0	4	7
$h(x)$	9	3	-5	1

A. 4

B. -5

C. 7

D. 1

4 Use the graph. What is $p(2)$?



A. 2

B. 3

C. 4

D. 5



Find more at
[ViewMath.com/IA-Algebra2](https://www.viewmath.com/IA-Algebra2)



Answer Key & Explanations



Answer Key

First try each quiz on your own, then check your work here.

Chapter 1

Quiz 1 *Answer Key* Real Number System and Set Notation

1 C ($\sqrt{45}$)

2 A (natural number)

3 $[-2, 5)$

4 A $((-\infty, 3])$

5 True

6 B ($x < -1$ or $x > 4$)

7 B $([-3, 2])$

8 It repeats, so it is rational.

Quiz 1 Explanations *Real Number System and Set Notation*

- Check whether each number can be written as a ratio of integers. $\sqrt{64} = 8$, $0.\overline{18}$ repeats, and $-\frac{13}{5}$ is rational, but $\sqrt{45}$ is irrational because 45 is not a perfect square.
- First simplify the radical: $\sqrt{81} = 9$. Since 9 is a counting number, the most precise listed set is natural number, even though it is also whole, integer, and rational.
- Translate each inequality symbol into endpoint notation. The symbol \leq includes -2 , so use a bracket there, while $<$ excludes 5, so use a parenthesis on the right.
- Numbers less than 3 extend left forever, so the interval begins at $-\infty$. The phrase "or equal to" includes 3, so the finite endpoint must use a bracket.



Get Online



Find more at
ViewMath.com/IA-Algebra2



- 5 A rational number is any number that can be written as a quotient of integers. Every integer n can be written as $\frac{n}{1}$, so every integer is rational.
- 6 The union symbol means values can come from either interval, not both at once. The graph would have one ray left of -1 and another ray right of 4 , so the statement uses "or."
- 7 Read the endpoints directly from the number line. The open circle at -3 means -3 is not included, while the closed circle at 2 means 2 is included.
- 8 A nonterminating decimal is rational when it has a repeating block. Here the block 27 repeats forever, so the decimal can be written as a fraction and is not irrational.

Chapter 3

Quiz 2 Answer Key Function Notation and Evaluation

1 C (11)

2 $2a - 3$

3 B (-5)

4 B (3)

5 A (10 cm)

6 B (The output is 14 when the input is 6.)

7 6

8 The square of -3 is positive.



Find more at
[ViewMath.com/IA-Algebra2](https://www.viewmath.com/IA-Algebra2)



 **Quiz 2 Explanations** *Function Notation and Evaluation*

- 1 Substitute -2 for every x using parentheses. Then $f(-2) = (-2)^2 - 3(-2) + 1 = 4 + 6 + 1 = 11$.
- 2 Replace x with the entire input $a + 1$. Then $g(a + 1) = 2(a + 1) - 5 = 2a + 2 - 5 = 2a - 3$.
- 3 The notation $h(4)$ asks for the output when the input is 4. In the table, the entry under $x = 4$ is -5 .
- 4 The value $p(2)$ is the y -value on the graph when $x = 2$. The marked point $(2, 3)$ shows that $p(2) = 3$.
- 5 Substitute 20 for t : $H(20) = 18 - 0.4(20) = 18 - 8 = 10$. The output is a height, so the unit is centimeters.
- 6 Function notation names an input-output pair. The expression $f(6) = 14$ means the function value, or output, is 14 for input 6.
- 7 Set the output equal to 31: $4x + 7 = 31$. Subtract 7 to get $4x = 24$, then divide by 4 to get $x = 6$.
- 8 The input must be squared before multiplying by 2. Since $(-3)^2 = 9$, the correct value is $2(9) + 1 = 19$, not -17 .

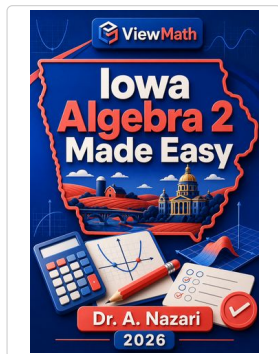


Find more at
[ViewMath.com/IA-Algebra2](https://www.viewmath.com/IA-Algebra2)



Great Job! Keep Learning with ViewMath!

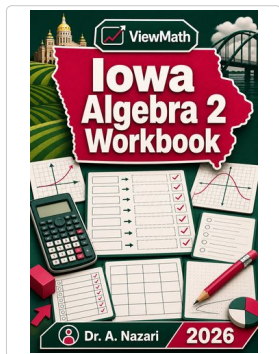
Keep up the great work! Visit viewmath.com/IA-Algebra2 for free lessons, quizzes, and more.



Study Guide



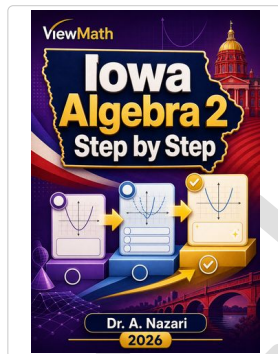
Scan Me



Workbook



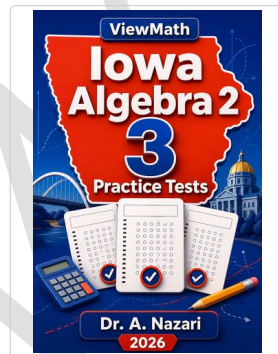
Scan Me



Step-by-Step



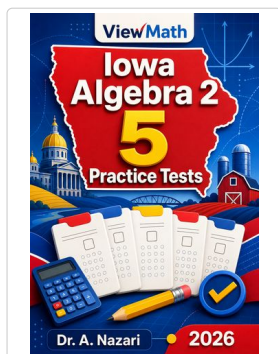
Scan Me



3 Practice Tests



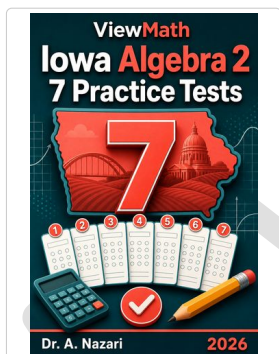
Scan Me



5 Practice Tests



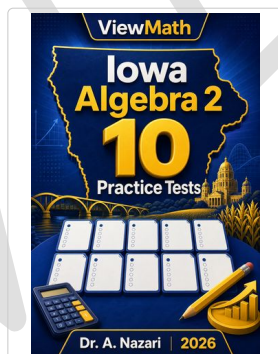
Scan Me



7 Practice Tests



Scan Me



10 Practice Tests



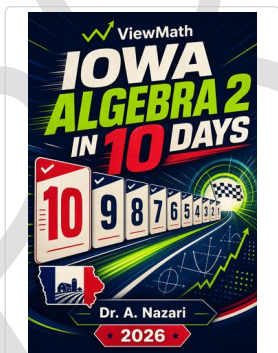
Scan Me



Math in 30 Days



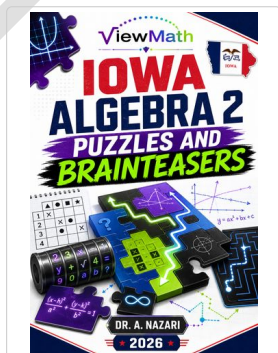
Scan Me



Math in 10 Days



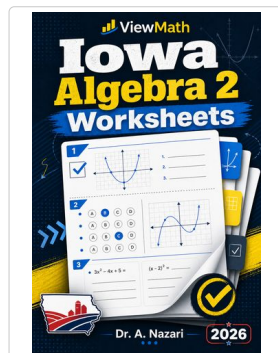
Scan Me



Puzzles



Scan Me



Worksheets



Scan Me



Find more at ViewMath.com/IA-Algebra2

