

5 Full-Length Indiana ILEARN Grade 7 Math Practice Tests

Extra Practice for Test Day Success

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

5 Practice Tests



 Grade 7 Math — Chart Your Path 

Welcome, math explorer!

This journal holds **5 full expeditions** across the entire landscape of Grade 7 math. From the peaks of proportional reasoning to the valleys of negative numbers, every trail is mapped and waiting for you.

-  **Trail 1–2:** Scout the terrain at your own pace
-  **Trail 3–4:** Push deeper with timed conditions
-  **Trail 5:** Summit the mountain — full test simulation

Every great explorer starts with a single step.

Yours starts on the next page.

“ Five trails gives you the journey every explorer needs: discover, practice, and conquer. Pack your pencils — the expedition begins! ”



Trail Guide

Your route map for 5 math expeditions

What's in This Journal

- **5 Full-Length Practice Tests** — each trail covers all 9 domains of Grade 7 math, from ratios and proportional relationships to probability and compound events.
- **Step-by-Step Answer Explanations** — not just answers, but a guided walkthrough of every solution path.
- **Expedition Log** — chart your scores, note tricky terrain, and celebrate the trails you've conquered.

Your 5-Trail Itinerary

Spread your trails over several weeks for the best journey:

Week 1: Trail 1 — untimed. Explore the landscape. Mark unfamiliar territory.

Week 2: Study the rough terrain from Trail 1. Then attempt Trail 2 (soft timer).

Week 3: Trail 3 — timed (65 min). Compare with Trail 1 to see growth.

Week 4: Focus on weak spots. Trail 4 — timed. Practice showing all work.

Week 5: Trail 5 — full conditions. The summit attempt!

Multiple Choice

Navigate four options and select the best path. Eliminate wrong answers first — like crossing streams off a map.

 **Explorer's tip:** Work the problem yourself before reading the choices.

Constructed Response

Show every calculation, label every unit, and explain your reasoning. Like a field journal, your work tells the full story.

 **Explorer's tip:** Even a partial trail earns credit. Never leave it blank.

Survival Skills

Essential navigation strategies for every trail

The Four-Point Compass

↑ **N** — *Note the key info*

Circle numbers. Underline the question.

← **W** — *Weigh your answer*

Does it match the question and estimate?

→ **E** — *Estimate first*

Get a ballpark answer before solving.

↓ **S** — *Solve step by step*

Write equations. Show every operation.

Grade 7 Terrain Warnings

 **Negative numbers:** Watch signs when multiplying and dividing rational numbers.

 **Proportions:** Make sure both ratios compare the same quantities in the same order.

 **Percent problems:** Identify whether you need the part, the whole, or the percent.

 **Geometry:** Label all measurements and don't confuse area with perimeter, or surface area with volume.

 **Probability:** Read whether the question asks for theoretical or experimental probability.

 Pacing Your Trek

- Trails 1–2: Untimed (explore freely)
- Trails 3–4: Timed (65 minutes)
- Trail 5: Strict test conditions
- Don't sprint — steady pace wins

 After Each Trail

- Read every answer explanation
- Mark the topic, not just the question
- Log your results in the Expedition Log
- Study rough terrain before the next trail



“ The best explorers don't avoid rough terrain — they study it. Every wrong answer is a trailhead to a deeper understanding. Follow those paths. ”



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)





Math Reference Sheet

You may use this page during your practice tests!

Symbol	Name	What It Means
$()$	Parentheses	Do this part first. $(3 + 4) \times 2 = 14$
10^3	Exponent	Multiply the base by itself that many times. $10^3 = 1,000$
$\frac{a}{b}$	Fraction	a parts out of b equal parts; also means $a \div b$.
$\frac{7}{3}$	Improper Fraction	Numerator $\geq$ denominator. $\frac{7}{3} = 2\frac{1}{3}$
0.45	Decimal	A number with a decimal point. $0.45 = \frac{45}{100}$
$> < =$	Comparison	Greater than, less than, equal to. $0.5 > 0.35$
$(3,5)$	Ordered Pair	A point on the coordinate plane: (x, y) .

Key Formulas

- **Volume of a rectangular prism:**

$$V = l \times w \times h$$

- **Order of operations:**

Parentheses $\rightarrow$ Exponents $\rightarrow$ Multiply/Divide
 $\rightarrow$ Add/Subtract

- **Powers of 10:**

$$10^1 = 10 \quad 10^2 = 100$$

$$10^3 = 1,000 \quad 10^4 = 10,000$$

- **Fraction as division:**

$$\frac{a}{b} = a \div b$$

Place Value Chart

Millions	1,000,000
Hundred-Thousands	100,000
Ten-Thousands	10,000
Thousands	1,000
Hundreds	100
Tens	10
Ones	1

Decimals

Tenths	0.1
Hundredths	0.01
Thousandths	0.001

Each place is $10\times$ the place to its right, and $\frac{1}{10}$ of the place to its left.

Key Math Vocabulary

- **Sum** — the result of addition
- **Difference** — the result of subtraction
- **Product** — the result of multiplication
- **Quotient** — the result of division
- **Remainder** — what's left over after dividing
- **Factor** — a number you multiply
- **Expression** — numbers and operations without =
- **Equation** — a math sentence with =
- **Numerator** — the top number of a fraction
- **Denominator** — the bottom number of a fraction
- **Mixed number** — a whole number + a fraction
- **Equivalent fractions** — fractions with equal value
- **Decimal** — a number written with a decimal point
- **Volume** — the space inside a 3D shape
- **Coordinate plane** — a grid with x and y axes
- **Ordered pair** — (x, y) location on the plane

Word Problem Clue Words

- **Add (+)**: total, altogether, combined, sum, increase, more than
- **Subtract (−)**: difference, how many more, fewer, remain, decrease, left
- **Multiply (×)**: each, every, groups of, times, product, per, of (with fractions)
- **Divide (÷)**: share equally, split, each group, how many groups, quotient, per



Get Online



Find more at
ViewMath.com/Grade7



Contents



<i>Practice Test 1</i>	<i>1</i>
------------------------------	----------

PREVIEW



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



PREVIEW

PRACTICE TEST

1

Practice Test 1

 30 Questions

Before You Start

- ✓ *Read each question carefully before choosing your answer.*
- ✓ *Show your work on scratch paper when you need to.*
- ✓ *Skip hard questions and come back to them later.*
- ✓ *Check your answers when you're done.*
- ✓ *Take your time — there's no rush!*

★ *You've Got This!* ★

Do your best and show what you know!



1. On a proportional graph, the point $(1, r)$ represents:

- (A) The x -intercept
- (B) The constant of proportionality
- (C) The slope of the line
- (D) Both B and C

2. Runner A passes through $(2, 10)$ and Runner B passes through $(2, 8)$. Both start at $(0, 0)$. Who is faster?

- (A) Runner A
- (B) Runner B
- (C) They are the same speed
- (D) Cannot be determined

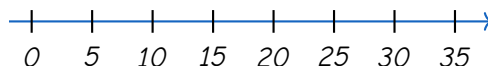
3. A recipe for 4 people uses $\frac{3}{2}$ cups of rice. How much rice is needed for 10 people?

- (A) $2\frac{1}{2}$ cups
- (B) 3 cups
- (C) $3\frac{3}{4}$ cups
- (D) 5 cups

4. A recipe uses 3 cups of sugar out of 12 cups of ingredients total. What percent is sugar?

- (A) 20%
- (B) 25%
- (C) 30%
- (D) 36%

5. A delivery app charges a \$3 flat fee plus a 10% service fee on your order. If your order is \$30, what is the total?



- (A) \$33.00
- (B) \$33.30
- (C) \$36.00
- (D) \$36.30



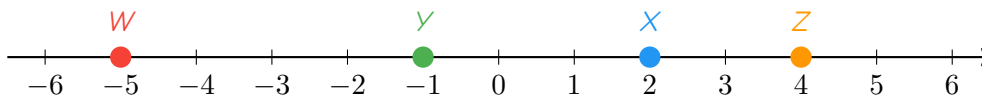
Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



6. You guessed there were 300 people at a concert. The actual attendance was 350. Find the percent error (rounded to the nearest tenth).

Your Answer:

7. Look at the number line. Which point has the greatest absolute value?



- (A) W
- (B) X
- (C) Y
- (D) Z

8. What integer must you add to -15 to get -6 ?

Your Answer:

9. Simplify $7x + 3x$.

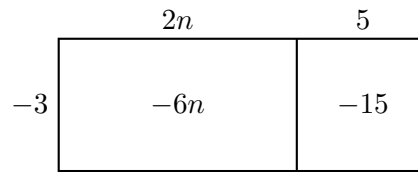
- (A) $10x$ (B) $21x$
- (C) $10x^2$ (D) $73x$



Find more at
ViewMath.com/Grade7



10. The area model shows a rectangle split into two parts. What is the expanded form?



(A) $-3(2n + 5) = -6n + 15$

(B) $-3(2n + 5) = -6n - 15$

(C) $-3(2n - 5) = -6n - 15$

(D) $3(2n + 5) = 6n + 15$

11. Solve $\frac{2x}{5} - 1 = 3$.

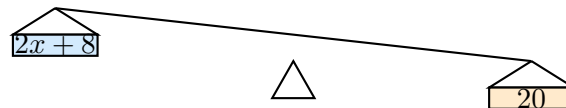
(A) $x = 5$

(B) $x = 10$

(C) $x = 4$

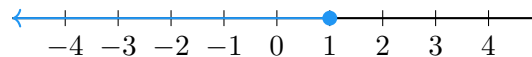
(D) $x = 20$

12. The balance scale tips to the left. Write and solve the inequality that describes this situation.



Your Answer:

13. Which inequality matches the graph below?



(A) $x \leq 1$

(B) $x < 1$

(C) $x \geq 1$

(D) $x > 1$



Get Online



Find more at
ViewMath.com/Grade7



14. A floor plan uses the scale $1 \text{ cm} = 2 \text{ m}$. A closet measures 1.5 cm by 1 cm on the plan. What is the actual area?

(A) 1.5 m^2

(B) 3 m^2

(C) 6 m^2

(D) 12 m^2

15. A circle with radius 5 cm is described as a condition. How many circles satisfy this condition?

(A) None

(B) Exactly one

(C) More than one (different positions)

(D) It depends on the center location

16. You know two angles of a triangle are 55° and 65° and a non-included side is 9 cm . This is an example of:

(A) SSS

(B) SAS

(C) ASA

(D) AAS

17. What shape is the cross-section when you cut a sphere through its center?

Your Answer:



Get Online



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



22. A triangular prism has two triangular bases each with area 15 cm^2 . The three rectangular lateral faces have areas 40 cm^2 , 30 cm^2 , and 50 cm^2 . What is the total surface area?

- (A) 120 cm^2 (B) 135 cm^2
(C) 150 cm^2 (D) 165 cm^2

23. A triangular prism has a triangular base with base 10 m and height 6 m. The prism is 8 m long. What is the volume?

Your Answer:

24. Which sampling method is most likely to produce a representative sample of a school's students?

- (A) Survey students in the cafeteria during lunch
(B) Survey every fifth student on an alphabetical class list
(C) Survey students who volunteer to participate
(D) Survey only students in honors classes

25. Data set: 4, 6, 7, 8, 10. The mean is 7. Find the MAD.

Your Answer:

26. Explain one advantage of using IQR instead of range to describe the spread of a data set.

Your Answer:



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



27. A double bar graph shows that Store A sold 200 items in June and 250 in July. Store B sold 180 in June and 300 in July. Which store had a bigger increase?

- (A) Store A (increase of 50) (B) Store B (increase of 120)
(C) They had the same increase (D) Neither store increased

28. A fair die is rolled. Which probability model correctly shows the probability of each outcome?

- (A) $P(1) = \frac{1}{6}, P(2) = \frac{1}{6}, P(3) = \frac{1}{6}, P(4) = \frac{1}{6}, P(5) = \frac{1}{6}, P(6) = \frac{1}{6}$ (B) $P(1) = \frac{1}{6}, P(2) = \frac{2}{6}, P(3) = \frac{3}{6}, P(4) = 0, P(5) = 0, P(6) = 0$
(C) $P(\text{even}) = \frac{1}{2}, P(\text{odd}) = \frac{1}{2}$ (D) $P(1) = \frac{1}{3}, P(2) = \frac{1}{3}, P(3) = \frac{1}{3}$

29. Two dice are rolled. What is the probability that the sum is 10 or greater? Write your answer as a fraction in simplest form.

Your Answer: _____



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



30. The table shows a simulation using random digits 0–9 to model a 30% chance of rain. Digits 0, 1, 2 represent rain. Based on the 10 trials below, what is the experimental probability of rain?

<i>Trial</i>	<i>Digit</i>	<i>Rain?</i>
1	5	No
2	1	Yes
3	8	No
4	0	Yes
5	3	No
6	7	No
7	2	Yes
8	9	No
9	4	No
10	6	No

(A) $\frac{2}{10} = 0.20$

(B) $\frac{3}{10} = 0.30$

(C) $\frac{4}{10} = 0.40$

(D) $\frac{7}{10} = 0.70$



Get Online



Find more at
[ViewMath.com/Grade7](https://www.viewmath.com/Grade7)



★ *End of Practice Test 1* ★

Great job finishing the test!

My Score

I got _____ out of 30 questions right.

*Check your answers in the **Answer Key** at the back of the book.*

 *Review any questions you missed. That's how we learn!*

THANK YOU

Enjoyed This Preview?

Get the Full Book!

This preview shows just a small sample of what's inside.

The complete book includes:

- ✓ *All chapters and topics*
- ✓ *Hundreds of practice problems*
- ✓ *Complete answer key with explanations*
- ✓ *Colorful visuals and step-by-step examples*
- ✓ *Reference sheets and progress trackers*

Available on Amazon and Teachers Pay Teachers

 Visit us at [ViewMath.com](https://www.viewmath.com) for free resources and more books!