Illinois IAR Grade 4 Math Summer Review

8-Week Core Review with Practice & Quizzes

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Welcome to Summer Math Review!

This 8-week plan reviews the Grade 4 math students already learned this year.

What this book does

- *Reviews core Grade 4 topics a little at a time.*
- *Helps students avoid forgetting important skills over summer.*
- *Gives 6 focused problems on each lesson day.*
- *Ends each week with a 10-question Friday quiz.*
- *Uses answer explanations to show the thinking.*

Review Grade 4 skills now, so Grade 5 starts with a stronger foundation.

Your 8-Week Summer Review Plan

Use this book four days a week, then take the quiz on Friday.

Weekly Schedule

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	Day 1	Day 2	Day 3	Day 4	Quiz 1
2	Day 5	Day 6	Day 7	Day 8	Quiz 2
3	Day 9	Day 10	Day 11	Day 12	Quiz 3
4	Day 13	Day 14	Day 15	Day 16	Quiz 4
5	Day 17	Day 18	Day 19	Day 20	Quiz 5
6	Day 21	Day 22	Day 23	Day 24	Quiz 6
7	Day 25	Day 26	Day 27	Day 28	Quiz 7
8	Day 29	Day 30	Mixed Review	Final Review	Final Quiz

For students

Read the Lesson Review first. Try all 6 problems before checking answers. If you miss one, read the explanation and fix your work.

For parents and teachers

The daily pages are meant to be short and steady. They review Grade 4 skills so students do not forget core topics over summer and are more prepared for Grade 5. If a student struggles, use the answer explanation as the teaching step, then have the student correct the problem.

Goal

By the end of 8 weeks, students will have completed 192 daily practice problems and 80 quiz questions, with review across the full Grade 4 math year.

Summer Progress Tracker

Check off each day as you review Grade 4 skills for Grade 5.

Week	Mon	Tue	Wed	Thu	Fri Quiz
1	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐
4	☐	☐	☐	☐	☐
5	☐	☐	☐	☐	☐
6	☐	☐	☐	☐	☐
7	☐	☐	☐	☐	☐
8	☐	☐	☐	☐	☐

Small practice adds up.

Four short days and one quiz each week help keep important Grade 4 math from fading over summer.

WEEK

1

Multiplication, Word Problems, and Factors

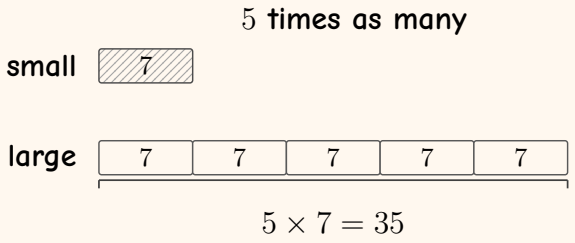
This Week's Days

Day 1: Multiplication as a Comparison
Day 4: Factors, Multiples, and Primes
Week 1 Quiz: Operations and Number Relationships Check

Day 1 Multiplication as a Comparison

A multiplicative comparison tells how many times as large one amount is as another amount.

- "35 is 5 times as many as 7" means $5 \times 7 = 35$.
- In the pattern **large amount = number of groups $\times$ small amount**, the words "times as many" point to multiplication.
- If you know the smaller amount and the comparison, multiply.
- If you know the larger amount and the comparison, divide to find the smaller amount.
- "Times as many" means multiply; "more than" means add or subtract.



Practice

1. *6 times as many as 9 is _____.*

2. *48 is 6 times as many as _____.*

3. *Write an equation: 72 is 8 times as many as 9.* _____

4. *Liam has 7 trading cards. Ava has 5 times as many trading cards as Liam. How many cards does Ava have?*

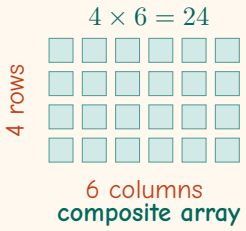
5. *A small bottle holds 12 ounces. A pitcher holds 4 times as much. Write and solve an equation for the pitcher.*

6. *Write a comparison sentence for $9 \times 8 = 72$.* _____

Day 4 Factors, Multiples, and Primes

Factors, multiples, primes, and composites describe how whole numbers are built.

- A **factor** divides a number with no remainder. Factor pairs multiply to make the number.
- To list factors, test $1, 2, 3$, and so on. Stop when the pairs repeat.
- A **multiple** is the result of skip-counting by a number.
- A **prime number** has exactly two factors: 1 and itself.
- A **composite number** has more than two factors.
- The number 1 is neither prime nor composite.



Practice

1. *List all factors of* 24. _____

2. *Find all factor pairs of* 28. _____

3. *Is* 7 *a factor of* 56*? Explain with a multiplication fact.*

4. *List the first five multiples of* 9. _____

5. *Is* 31 *prime or composite?* _____

6. *I am greater than* 20 *and less than* 30*. I am a multiple of both* 4 *and* 6*. What number am I?*

Week 1 Quiz

Operations and Number Relationships Check

Name: _____ Date: _____ Score: _____/10

1. Which equation matches this sentence? 56 is 7 times as many as 8.

   A. $7 \times 8 = 56$ **B.** $56 \times 7 = 8$

   C. $8 \div 7 = 56$ **D.** $56 + 7 = 63$

2. 9 times as many as 6 is _____.

3. A rope is 72 feet long. It is 8 times as long as a cord. How long is the cord?

4. Jay has 14 points. Lena has 3 times as many points. How many more points does Lena have than Jay?

5. A class has 5 tables with 6 students at each table and 7 students on the carpet. How many students are there in all?

6. Five rows have 18 seats in each row. If 12 seats are empty, how many seats are filled?

7. List all factor pairs of 36. _____

8. Which statement is true about 29?

   A. 29 is prime **B.** 29 is composite

   C. 29 has 3 as a factor **D.** 29 is even

9. True or false: $7, 14, 21, 28$ are the first four nonzero multiples of 7. ☐ True ☐ False

10. A garden club plants 6 rows of 8 flowers and 3 rows of 5 flowers. How many flowers are planted?

WEEK

8

Geometry, Symmetry, and Final Grade 4 Review

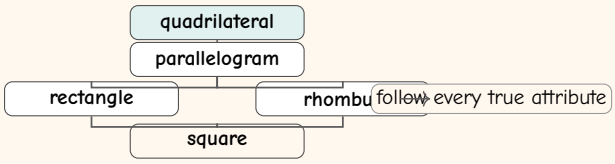
This Week's Days

Day 29: Classify Shapes

Day 29 Classify Shapes

Classify shapes by attributes and shape families.

- A polygon is closed and made only of straight sides.
- Triangles have 3 sides; quadrilaterals have 4.
- Pentagon $= 5$, hexagon $= 6$, octagon $= 8$, decagon $= 10$ sides.
- Triangles can be acute, right, or obtuse.
- A square is also a rectangle, rhombus, parallelogram, and quadrilateral.



Practice

1. How many sides does a hexagon have? _____

2. A shape has 4 equal sides and 4 right angles. What is it?

3. True or false: Every rectangle is a parallelogram. ☐ True ☐ False

4. True or false: Every parallelogram is a rectangle. ☐ True ☐ False

5. A triangle has angles $35°$, $60°$, and $85°$. What type of triangle is it?

6. A quadrilateral has 2 pairs of parallel sides and all sides equal, but no right angles. What is it?

Check Your Answers!

Try each problem first, then look here to check your work.
It's OK to make mistakes — that's how we learn

Week 1 Day 1: Multiplication as a Comparison

Answer Key

1. 54
2. 8
3. $8 \times 9 = 72$
4. 35 *cards*
5. $4 \times 12 = 48$; 48 *ounces*
6. 72 *is* 9 *times as many as* 8.

Explanations

1. *The words "times as many" tell you to multiply the comparison number by the smaller amount. Compute* $6 \times 9 = 54$*, so* 54 *is* 6 *times as many as* 9.

2. *Here the larger amount is known, so use division to find the smaller amount. Since* $48 \div 6 = 8$*,* 48 *is* 6 *times as many as* 8.

3. *The comparison number is* 8 *and the smaller amount is* 9*. Multiplying them gives the larger amount, so the equation is* $8 \times 9 = 72$.

4. *Ava's amount is compared to Liam's amount with "*5 *times as many," so multiply.* $5 \times 7 = 35$*, which means Ava has* 35 *trading cards.*

5. *The pitcher is the larger amount because it holds* 4 *times as much as the bottle. Multiply* 4×12 *to get* 48 *ounces.*

6. *A multiplication equation can be read as a comparison by making the product the larger amount. Since* $9 \times 8 = 72$*, one correct sentence is "*72 *is* 9 *times as many as* 8*."*

Week 1 Day 4: Factors, Multiples, and Primes

Answer Key

1. $1, 2, 3, 4, 6, 8, 12, 24$
2. $(1, 28), (2, 14), (4, 7)$
3. *Yes;* $7 \times 8 = 56$.
4. $9, 18, 27, 36, 45$
5. *Prime*
6. 24

Explanations

1. *Factor pairs for* 24 *are* 1×24, 2×12, 3×8, *and* 4×6. *Listing every number in those pairs gives all the factors of* 24.

2. *A factor pair multiplies to the target number. The products* 1×28, 2×14, *and* 4×7 *make* 28, *and then the pairs begin to repeat.*

3. *A number is a factor if it divides the target evenly. Since* $7 \times 8 = 56$, 7 *is one factor of* 56.

4. *Multiples of* 9 *come from skip-counting by* 9 *or multiplying* 9 *by whole numbers.* 9×1 *through* 9×5 *gives* $9, 18, 27, 36, 45$.

5. *A prime number has exactly two factors,* 1 *and itself. The number* 31 *is not divisible evenly by* $2, 3, 4,$ *or* 5, *so its only factors are* 1 *and* 31.

6. *A number that is a multiple of both* 4 *and* 6 *must appear in both skip-counting lists. Between* 20 *and* 30, 24 *is in both lists because* $4 \times 6 = 24$ *and* $6 \times 4 = 24$.

Week 1 Quiz: Operations and Number Relationships Check

Answer Key

1. *A*
2. 54
3. 9 *feet*
4. 28 *more points*
5. 37 *students*
6. 78 *seats*
7. $(1, 36), (2, 18), (3, 12), (4, 9), (6, 6)$
8. *A*
9. *True*
10. 63 *flowers*

Explanations

1. *The words "7 times as many as 8" mean 7 groups of 8. Multiplying 7×8 gives 56, so choice A matches the sentence.*

2. *A "times as many" comparison uses multiplication when the smaller amount is known. This means 9 equal groups of 6, and $9 \times 6 = 54$.*

3. *The rope is the larger amount and is 8 times the cord length. Divide $72 \div 8 = 9$, so the cord is 9 feet long.*

4. *First find Lena's points: $3 \times 14 = 42$. The question asks how many more, so subtract $42 - 14 = 28$.*

5. *First multiply to count the students at tables: $5 \times 6 = 30$. Then add the 7 students on the carpet, so $30 + 7 = 37$.*

6. *First find the total number of seats: $5 \times 18 = 90$. Subtract the empty seats, $90 - 12 = 78$, so 78 seats are filled.*

7. *Factor pairs multiply to make 36. Testing numbers in order gives 1×36, 2×18, 3×12, 4×9, and 6×6 before the pairs repeat.*

8. *A prime number has exactly two factors. The number 29 is not divisible evenly by $2, 3, 4$, or 5, so its only factors are 1 and 29.*

9. *Multiples of 7 come from skip-counting by 7. The first four nonzero multiples are 7×1, 7×2, 7×3, and 7×4, which are $7, 14, 21, 28$.*

10. *Find each group of rows first: $6 \times 8 = 48$ flowers and $3 \times 5 = 15$ flowers. Add the two parts,*

$48 + 15 = 63$, so 63 flowers are planted.

Week 8 Day 29: Classify Shapes

Answer Key

1 6 sides	2 Square	3 True	4 False	5 Acute triangle	6 Rhombus

Explanations

1. Polygon names tell the number of straight sides. The prefix hex- means 6, so a hexagon has 6 sides.

2. A square has all sides equal and all angles right. It is the special quadrilateral that is both a rectangle and a rhombus.

3. A parallelogram has two pairs of parallel sides. Rectangles have two pairs of parallel sides, so every rectangle is a parallelogram.

4. A rectangle must have four right angles. A parallelogram can have slanted angles, so not every parallelogram is a rectangle.

5. A triangle is acute when all three angles are less than $90°$. Since $35°$, $60°$, and $85°$ are all less than $90°$, it is acute.

6. A rhombus has four equal sides. It does not need right angles, so this shape is a rhombus rather than a square.

Great job checking your work!

Keep practicing and you'll be a math star!

Great Job! Keep Learning with ViewMath!

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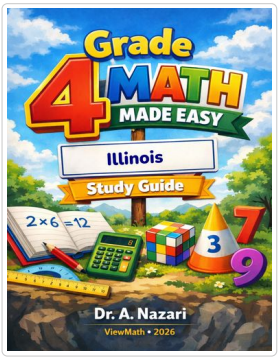

Study Guide

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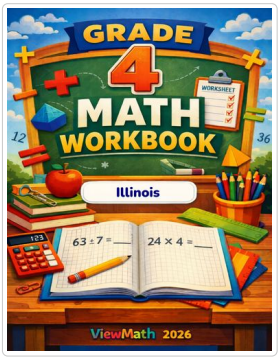

Workbook

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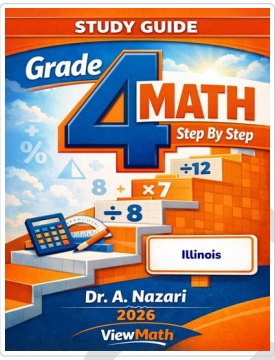

Step-by-Step

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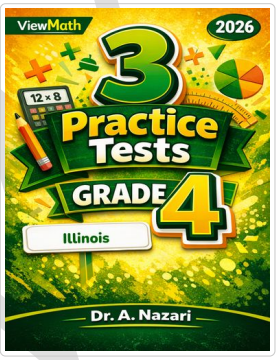

3 Practice Tests

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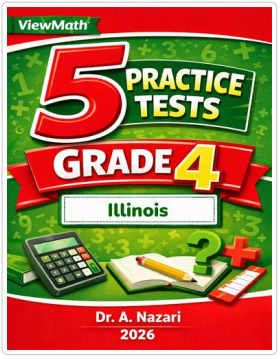

5 Practice Tests

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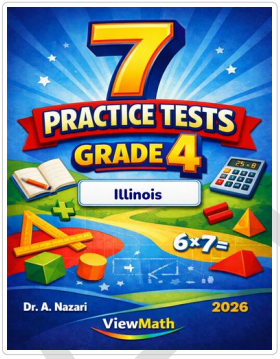

7 Practice Tests

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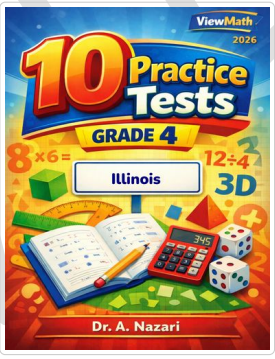

10 Practice Tests

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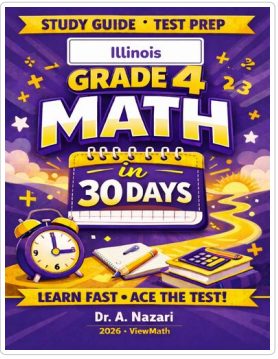

Math in 30 Days

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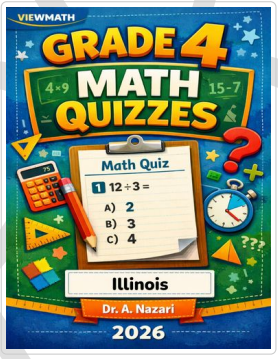

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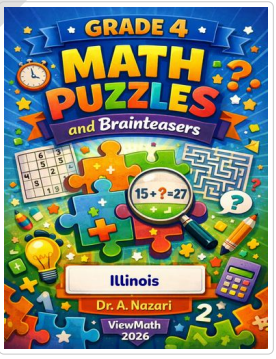

Puzzles

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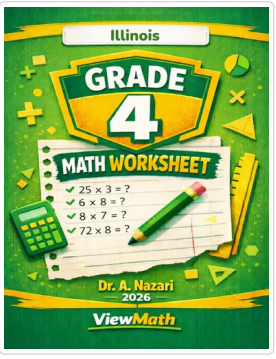

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