

Illinois IAR Grade 4 Math Made Easy

Study Guide with Key Concepts, Review & Practice

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YOUR QUICK REFERENCE

Grade 4 Math Made Easy

Hey there, math learner! ★

This study guide gives you the **core ideas**, **clear examples**, and **practice problems** for every Grade 4 math topic — all in one compact book.

Need a refresher? Flip to any topic.

Want to practice? Every section has problems with answers.

Let's dive in! 🚀



Read



Practice



Master

How to Use This Book

Each topic follows the same simple pattern.

Key Concept

The main idea, explained simply. Understand this and the rest clicks into place.

Worked Examples

Step-by-step solutions that show you exactly how it's done. Try covering the answer first!

Practice Problems

Your turn to solve! Every problem has an answer in the back of the book.



Owlbert's Tips

Memory tricks, shortcuts, and “watch out” warnings from your study buddy Owlbert.

Study Tip: *Focus on one topic at a time. Understanding beats rushing — take the time you need!*

X¹ Math Symbols You Should Know X¹

Keep this page handy as you work through the book!

Symbol	Name	What It Means
+	Plus (Add)	Combine amounts. $4,521 + 3,089 = 7,610$
-	Minus (Subtract)	Find the difference. $6,003 - 1,457 = 4,546$
×	Times (Multiply)	Repeated groups. $36 \times 24 = 864$
÷	Divide	Split equally. $91 \div 7 = 13$
=	Equals	Same value on both sides. $\frac{3}{6} = \frac{1}{2}$
> <	Greater / Less Than	Compares two values. $\frac{3}{4} > \frac{2}{5}$
$\frac{a}{b}$	Fraction Bar	a parts out of b equal parts.
.	Decimal Point	Separates wholes from parts. $0.75 = \frac{75}{100}$
∠	Angle	Two rays sharing a vertex. $\angle ABC = 45^\circ$

Key Math Words for Grade 4

- **Factor** — number you multiply by
- **Product** — answer when you multiply
- **Quotient** — answer when you divide
- **Remainder** — left over after dividing
- **Prime** — only 1 and itself as factors
- **Composite** — more than two factors
- **Numerator** — top of a fraction
- **Denominator** — bottom of a fraction
- **Equivalent** — same value, different form
- **Mixed Number** — whole + fraction
- **Perimeter** — distance around a shape
- **Area** — space inside a shape

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CHAPTER

1

Multiply, Divide, and Patterns

★ *What's Inside* ★

1.1 <i>Multiplication as a Comparison</i>	2
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★ 1.1 Multiplication as a Comparison ★

🎯 In this lesson you will learn:

- Understand what “times as many” means
- Write multiplication equations from comparison sentences
- Read statements like “35 is 5 times as many as 7”

🎓 What Does “Times As Many” Mean?

When we say “3 **times as many**,” we mean a number is multiplied by 3.

Example:

- Sam has 4 stickers.
- Mia has 3 times as many stickers as Sam.
- Mia has $3 \times 4 = 12$ stickers.



Mia has 3 groups of 4. That's 12!

Key idea: “Times as many” always means **multiply**. “More than” means **add**. They are NOT the same!



“ If you see the words “times as many,” grab your multiplication skills! ”



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[ViewMath.com/Grade4](https://www.viewmath.com/Grade4)



 Reading a Comparison Sentence

"24 is 6 times as many as 4."

1. Find the two numbers being compared: 24 and 4.
2. The multiplier is 6.
3. Check: $6 \times 4 = 24$ ✓

✓ **Answer:** $6 \times 4 = 24$

 Writing a Comparison Equation

Jake has 5 toy cars. Emma has 4 times as many toy cars as Jake. How many toy cars does Emma have?

1. Jake has 5 cars (the smaller amount).
2. Emma has 4 times as many.
3. Multiply: $4 \times 5 = 20$

✓ **Answer:** Emma has 20 toy cars.



 Multiplication as a Comparison — Practice

1. 6 times as many as 3 = _____

3. 8 times as many as 5 = _____

2. 4 times as many as 7 = _____

4. $3 \times$ _____ = 21

5. Ben has 6 baseball cards. Luis has 4 times as many baseball cards as Ben. How many baseball cards does Luis have?

Answer: _____ cards

6. A tree is 9 feet tall. A building is 7 times as tall as the tree. How tall is the building?

Answer: _____ feet



CHAPTER

2

Adding, Subtracting, Multiplying, and Dividing Whole Numbers

★ *What's Inside* ★

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★ 2.1 Add Whole Numbers ★

🎯 In this lesson you will learn:

- Add multi-digit whole numbers using the standard algorithm
- Regroup (carry) when a column adds to 10 or more
- Add numbers up to the thousands place

🎓 The Standard Addition Algorithm

To add multi-digit numbers, **line up the digits by place value** and add column by column from right to left.

$$\begin{array}{r} \overset{1}{3} \quad \overset{1}{4} \quad 7 \\ + 2 \quad 8 \quad 5 \\ \hline 6 \quad 3 \quad 2 \end{array}$$

Regrouping (carrying): When a column adds to 10 or more, write the ones digit and **carry** the tens digit to the next column.

- Ones: $7 + 5 = 12$. Write 2, carry 1.
- Tens: $4 + 8 + 1 = 13$. Write 3, carry 1.
- Hundreds: $3 + 2 + 1 = 6$.



“ Always start from the **right** (ones column) and work left. Don't forget to add any carried digits! ”



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 Add Without Regrouping: $432 + 251$

1. *Ones:* $2 + 1 = 3$
2. *Tens:* $3 + 5 = 8$
3. *Hundreds:* $4 + 2 = 6$

✓ **Answer:** $432 + 251 = 683$

 Add Four-Digit Numbers: $3,748 + 2,695$

1. *Ones:* $8 + 5 = 13$. Write 3, carry 1.
2. *Tens:* $4 + 9 + 1 = 14$. Write 4, carry 1.
3. *Hundreds:* $7 + 6 + 1 = 14$. Write 4, carry 1.
4. *Thousands:* $3 + 2 + 1 = 6$.

✓ **Answer:** $3,748 + 2,695 = 6,443$



 Add Whole Numbers Practice

1. $524 + 361 =$ _____

3. $2,456 + 3,387 =$ _____

2. $739 + 148 =$ _____

4. $4,809 + 1,763 =$ _____

5. A school collected 1,258 cans in January and 1,475 cans in February. How many cans were collected in all? _____

6. The library has 3,692 fiction books and 2,548 non-fiction books. How many books does the library have in total? _____



THANK YOU

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

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