

? AhaWhy

Texas STAAR Grade 3 Math

Made Easy

Study Guide



Dr. A. Nazari

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Texas STAAR Grade 3 Math Made Easy

Study Guide with Key Concepts, Review & Practice

Dr. A. Nazari

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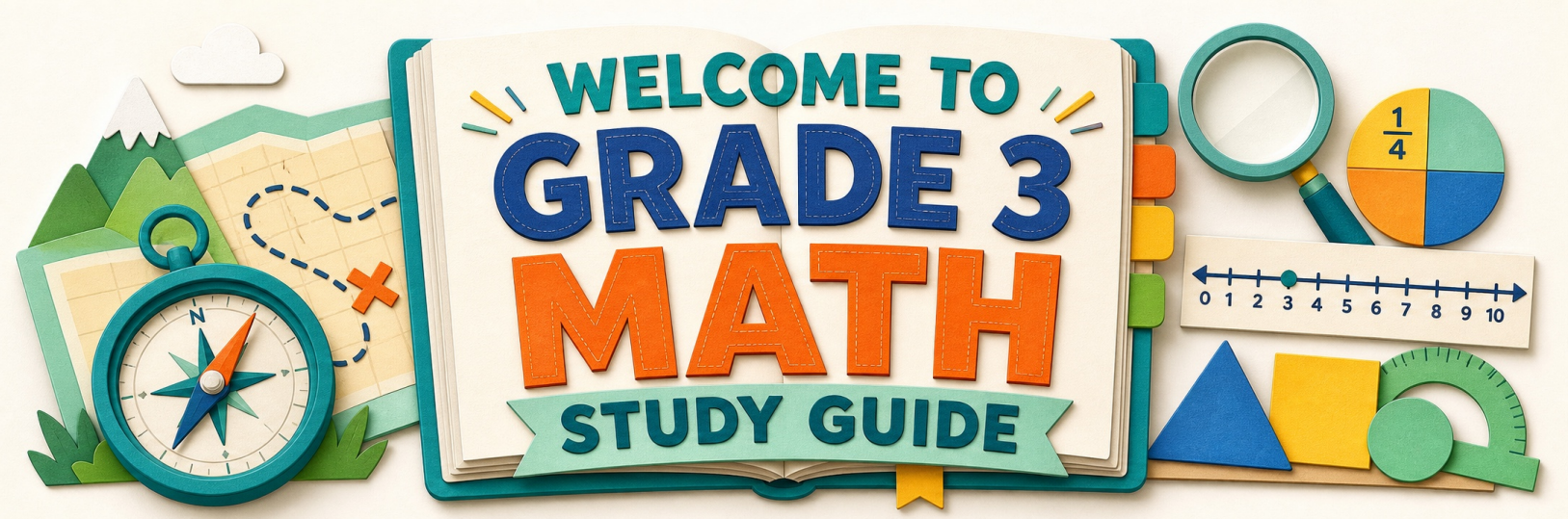
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Use this guide to find the key idea, study a worked example, and review what matters most.



Explore

Find the meaning of each skill with clear words, pictures, and models.



Understand

Follow worked examples and notice the reason behind every step.



Review

Use short practice and explanations to make the learning stick.



Start



Practise



Learn



Grow

Your guide is a map—take one math idea at a time.



Turn each section into a short, focused study session.

1

Preview the skill.

Read the heading and key idea. Look at the model before you begin the example.

2

Study the example.

Follow one step at a time and ask why each step is useful.

3

Try the practice.

Cover the example, solve independently, and show enough work to check your thinking.

4

Review the explanation.

Correct any mistake and write one reminder that will help next time.

A few focused minutes of review can make a big difference.

Grade 3 Math Toolbox

Quick reminders for practice—choose the tool that fits the problem.



CHOOSE AN OPERATION



Add

sum, total, in all



Subtract

difference, fewer, left



Multiply

equal groups, each, rows



Divide

share equally, groups of

Place Value & Rounding

10,000s	1,000s	100s	10s	1s
4	3	5	8	2

In 43,582, the 3 is worth 3,000.

To round: underline the place, then look one digit right.

0–4: keep it

5–9: round up



Measurement & Time

1 foot = 12 inches

1 meter = 100 cm

1 hour = 60 min

\$1 = 100 cents

1 yard = 3 feet

1 kg = 1,000 g

1 minute = 60 sec

4 quarters = \$1



Fractions



$$\frac{2}{4} = \frac{1}{2}$$

Top number: selected equal parts

Bottom number: total equal parts



Math Relationships

Multiplication and division undo each other:

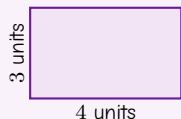
$$4 \times 6 = 24 \quad 24 \div 6 = 4$$

Addition and subtraction undo each other:

$$37 + 25 = 62 \quad 62 - 25 = 37$$



Geometry



Perimeter is the distance around.

$$P = 4 + 4 + 3 + 3 = 14 \text{ units}$$

Area is the space inside.

$$A = 4 \times 3 = 12 \text{ square units}$$



Solve It Step by Step

READ

What do I know? What is the question asking?

PLAN

Which operation, picture, or model will help?

SOLVE

Show the steps and label the answer.

CHECK

Is the answer reasonable? Is the unit correct?



Compare

= same value > greater than < less than

Multiplication Table

You may use this table during your practice tests!

×	1	2	3	4	5	6	7	8	9	10	11
1	1	2	3	4	5	6	7	8	9	10	11
2	2	4	6	8	10	12	14	16	18	20	22
3	3	6	9	12	15	18	21	24	27	30	33
4	4	8	12	16	20	24	28	32	36	40	44
5	5	10	15	20	25	30	35	40	45	50	55
6	6	12	18	24	30	36	42	48	54	60	66
7	7	14	21	28	35	42	49	56	63	70	77
8	8	16	24	32	40	48	56	64	72	80	88
9	9	18	27	36	45	54	63	72	81	90	99
10	10	20	30	40	50	60	70	80	90	100	110
11	11	22	33	44	55	66	77	88	99	110	121

How to Use This Table

To find 4×7 :

1. Find **4** in the left column (blue).
2. Find **7** in the top row (blue).
3. Follow the row and column until they meet: the answer is **28**!



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A clear route from number sense and operations to geometry.

Use the chapters in order for a complete review, or move directly to the topic you need and return to the answer explanations afterward.

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CHAPTER

1

Number Sense & Place Value

★ What's Inside ★

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★ 1.1 Place Value: Ones, Tens, Hundreds ★

🎯 In this lesson you will learn:

- Understand that a digit's value depends on its position
- Identify the ones, tens, and hundreds places
- Write numbers in expanded form

🎓 What Is Place Value?

Place value tells us how much a digit is worth based on *where* it sits in a number.

Look at the number **527**:

H	T	O
5	2	7

- The **5** is in the **hundreds** place → 500
- The **2** is in the **tens** place → 20
- The **7** is in the **ones** place → 7

Expanded form: $527 = 500 + 20 + 7$

A **0** is a placeholder: In 308, the 0 means zero tens: $308 = 300 + 0 + 8$.



“ Think of place value like floors in a building! Ones are on the first floor, tens on the second, hundreds on the top. Higher floor = bigger value! ”





Show 364 with Base-Ten Blocks



1. 3 hundreds = 300
2. 6 tens = 60
3. 4 ones = 4



Answer: $364 = 300 + 60 + 4$



What Is the Value of 6 in 461?

1. Find which place the 6 is in: **tens**
2. The tens place means we multiply by 10



Answer: The value of 6 in 461 is 60.



Place Value Practice



1. What is the value of 3 in 382? _____
2. What is the value of 6 in 561? _____
3. Write 259 in expanded form: _____
4. Write the number for $600 + 30 + 9$: _____



5. Write 406 in expanded form: _____

6. Lily has 3 hundred-dollar bills, 5 ten-dollar bills, and 2 one-dollar bills. How much money does Lily have?

Answer: _____ dollars



★ 1.2 Place Value: Thousands ★

🎯 In this lesson you will learn:

- Extend place value to the thousands place and understand the $\times 10$ relationship between places
- Read and write 4-digit numbers in expanded form
- Compare and order 4-digit numbers using $<$, $>$, and $=$

🎓 Welcome to the Thousands!

The **thousands** place is the fourth digit from the right. Each place is **10 times** the place to its right:

$$1 \xrightarrow{\times 10} 10 \xrightarrow{\times 10} 100 \xrightarrow{\times 10} 1,000$$

Look at **3,472**:

Thousands	Hundreds	Tens	Ones
3	4	7	2
3,000	400	70	2

$$3,472 = 3,000 + 400 + 70 + 2$$

Use a **comma** to separate the thousands: write 3,472, not 3472.

Zeros are placeholders: $4,059 = 4,000 + 0 + 50 + 9$.

Comparing 4-digit numbers: Start from the **leftmost** digit. Compare the thousands first, then hundreds, then tens, then ones. The first place where the digits differ tells you which number is greater.





“ Each place is 10 times bigger than the one to its right! So 3 thousands = 30 hundreds = 300 tens = 3,000 ones. ”

Expand 6,835

1. 6 is in the thousands place: 6,000
2. 8 is in the hundreds place: 800
3. 3 is in the tens place: 30
4. 5 is in the ones place: 5

✓ **Answer:** $6,835 = 6,000 + 800 + 30 + 5$

Compare 4,738 and 4,692

1. Compare the **thousands**: both are 4 — they match.
2. Compare the **hundreds**: $7 > 6$.
3. Since the hundreds digit is greater, 4,738 is the larger number.

✓ **Answer:** $4,738 > 4,692$



 Place Value and Comparing

1. Write 5,206 in expanded form. _____
2. What is the value of the digit 9 in 9,314? _____
3. Write the number for $7,000 + 400 + 60 + 1$. _____
4. Compare using $<$, $>$, or $=$: 2,856 _____ 2,912
5. Compare using $<$, $>$, or $=$: 6,450 _____ 6,405
6. Order from least to greatest: 3,210, 3,120, 3,201.



★ 1.3 Comparing & Ordering Numbers ★

🎯 In this lesson you will learn:

- Compare numbers using $<$, $>$, and $=$
- Order numbers from least to greatest and greatest to least
- Use place value to compare multi-digit numbers

🎓 Comparing Numbers

We use special symbols to compare numbers:

Symbol	Meaning	Example
$>$	greater than	$8 > 3$
$<$	less than	$2 < 9$
$=$	equal to	$5 = 5$

How to compare:

1. The number with **more digits** is greater. ($1,234 > 987$)
2. Same number of digits? Compare from the **left**.
3. Find the first digit that is **different** — it decides!

Ordering means putting numbers in a line from smallest to biggest (or biggest to smallest).



“ The symbol is like a hungry alligator — its mouth always opens toward the **BIGGER** number! $8 > 3$ ”



 Compare 637 and 682

Both are 3-digit numbers, so compare digit by digit from the left:

1. Hundreds: $6 = 6$ (same — move right)
2. Tens: $3 < 8$ (3 is less than 8)

✓ **Answer:** $637 < 682$

 Order 429, 387, 451 from Least to Greatest

1. Compare hundreds: 387 has 3, the others have 4. So 387 is the smallest.
2. Compare 429 and 451: tens are 2 vs. 5. Since $2 < 5$, $429 < 451$.

✓ **Answer:** 387, 429, 451

 Comparing & Ordering Practice

Compare: Write $<$, $>$, or $=$

1. 345 _____ 398

2. 721 _____ 712

3. 500 _____ 500

4. $3,409$ _____ $3,490$



Order from Least to Greatest

5. 284, 197, 342 $\rightarrow$ _____

6. 5,120, 5,021, 5,210 $\rightarrow$ _____

