# NumberWonders Number Sense Pack v1

Pilot release - direct download edition

Use this printable pack for grades K-6 to build place value confidence, mental math fluency, pattern recognition, and explanation skills.

**Estimated Time:** 10 sessions x 30-40 min

**Format:** Printable worksheet pack

**Audience:** Home, tutoring, and classrooms

**License:** Single class or household pilot use

Place value | Operations | Patterns | Reasoning | Answer key included

## Teacher Quick Start

1. Choose one worksheet per session and set a timebox (20-25 min independent work).
2. Use the discussion prompts after each worksheet (5-8 min).
3. Review the answer key and ask learners to explain one method in words.
4. Use the extension challenge if students finish early.

> **Differentiation tip:** Let struggling learners solve odd-numbered questions first, then pair to compare methods before finishing the full set.

# Worksheet Index

| # | Topic | Target Skill |
|---|---|---|
| 1 | Place Value Builder | Expanded form and regrouping |
| 2 | Number Bonds and Operations | Add/subtract strategies |
| 3 | Compare and Order | Magnitude and reasoning |
| 4 | Pattern Detective | Rule finding and extension |
| 5 | Mental Math and Estimation | Number sense checks |
| 6 | Word Problem Lab | Modeling and explanation |
| 7 | Multiplication Strategies | Area model and decomposition |
| 8 | Division Sense | Quotients and remainders |
| 9 | Fractions and Decimals Bridge | Equivalent values and conversion |
| 10 | Data and Reasoning Mini-Lab | Table reading and inference |

# Worksheet 1: Place Value Builder

Write each number in expanded form. Then answer the challenge question.

1) 482 = _____

2) 907 = _____

3) 1,205 = _____

4) 7,430 = _____

5) 9,018 = _____

6) 54 tens + 3 ones = _____

7) 8 hundreds + 14 ones = _____

8) 12 hundreds + 5 tens = _____

9) 3 thousands + 90 + 4 = _____

10) 600 + 70 + 2 = _____

> Challenge: Create a 4-digit number where the hundreds digit is double the tens digit and the ones digit is 5.

## Worksheet 2: Number Bonds and Operations

Use number bonds, compensation, or decomposition.

1) 48 + 27 = _____

2) 103 - 58 = _____

3) 299 + 47 = _____

4) 720 - 190 = _____

5) 64 + 39 = _____

6) 500 - 276 = _____

7) 125 + 125 + 125 = _____

8) 840 - 399 = _____

9) 68 + 34 - 12 = _____

10) 1,000 - 375 = _____

> Discussion prompt: Which two problems can be solved fastest by changing one number first?

## Worksheet 3: Compare and Order

Write **<**, **>**, or **=** and justify two answers in words.

1) 4,205 ___ 4,250

2) 809 ___ 890

3) 9,099 ___ 9,090

4) 12 hundreds ___ 1,190

5) 3,006 ___ 2,996

6) 7,500 ___ 75 hundreds

7) 5,050 ___ 5,005

8) 999 ___ 1,000

9) 408 ___ 480

10) 2,340 ___ 2,304

Order from least to greatest: 3,450; 3,405; 3,540; 3,504.

## Worksheet 4: Pattern Detective

Find the rule and write the next 3 terms.

1) 4, 7, 10, 13, ___, ___, ___

2) 96, 88, 80, 72, ___, ___, ___

3) 5, 10, 20, 40, ___, ___, ___

4) 1, 4, 9, 16, ___, ___, ___

5) 3, 6, 12, 24, ___, ___, ___

6) 100, 95, 85, 70, ___, ___, ___

7) 2, 5, 11, 23, ___, ___, ___

8) 81, 27, 9, 3, ___, ___, ___

> Extension: Create your own 6-term pattern that alternates two operations.

## Worksheet 5: Mental Math and Estimation

Estimate first, then solve exactly.

1) 398 + 204 (estimate: _____ exact: _____)

2) 1,052 - 487 (estimate: _____ exact: _____)

3) 49 x 6 (estimate: _____ exact: _____)

4) 803 + 197 (estimate: _____ exact: _____)

5) 725 - 299 (estimate: _____ exact: _____)

6) 32 x 25 (estimate: _____ exact: _____)

7) 1,999 + 501 (estimate: _____ exact: _____)

8) 640 / 8 (estimate: _____ exact: _____)

> Reflection: Which estimates were closest and why?

## Worksheet 6: Word Problem Lab

Show your equation and write one sentence explaining your method.

1. A class has 28 students. 13 bring lunch from home, and the rest buy lunch. How many buy lunch?
2. A bookstore had 540 notebooks. It sold 189 on Monday and 157 on Tuesday. How many are left?
3. A bus travels 245 km in the morning and 178 km in the afternoon. What is the total distance?
4. A game starts at 1,000 points. You lose 275 points, then gain 120. What is your final score?
5. A teacher makes 36 packets with 25 stickers each. How many stickers are used?
6. A charity collected 4,500 USD and spent 1,275 USD on supplies. How much remains?

> Challenge: Rewrite one problem with different numbers but the same structure.

## Worksheet 7: Multiplication Strategies

Solve using area model, distributive property, or place-value decomposition.

1) 24 x 13 = _____

2) 36 x 15 = _____

3) 42 x 19 = _____

4) 125 x 8 = _____

5) 18 x 27 = _____

6) 54 x 12 = _____

7) 99 x 14 = _____

8) 250 x 16 = _____

> Explain one problem by splitting a factor into tens and ones.

## Worksheet 8: Division Sense

Find quotient and remainder when needed.

1) 144 ÷ 12 = _____

2) 365 ÷ 7 = _____

3) 1,008 ÷ 9 = _____

4) 250 ÷ 6 = _____

5) 924 ÷ 11 = _____

6) 777 ÷ 8 = _____

7) 1,260 ÷ 15 = _____

8) 3,200 ÷ 25 = _____

> Challenge: Write a word problem for 365 ÷ 7.

## Worksheet 9: Fractions and Decimals Bridge

Convert, compare, and reason using number lines.

1) 1/2 = _____ (decimal)

2) 3/4 = _____ (decimal)

3) 0.2 = _____ (fraction)

4) 0.125 = _____ (fraction)

5) Which is larger: 5/8 or 0.6 ? _____

6) Order from least to greatest: 0.45, 1/2, 0.4

7) 2.75 = _____ + _____ + _____

8) Shade 3/10 of a 10x10 grid (draw in notebook)

> Explain why 0.5 and 1/2 represent the same quantity.

# Worksheet 10: Data and Reasoning Mini-Lab

Read the table and answer the questions.

| Day | Books read |
|---|---|
| Mon | 18 |
| Tue | 25 |
| Wed | 22 |
| Thu | 31 |
| Fri | 24 |

1) Total books this week = _____

2) Average per day = _____

3) Which day was highest? _____

4) How many more than Monday on Thursday? ___

5) If Saturday adds 20 books, new total = _____

6) Write one inference about reading habits.

> Extension: Draw a simple bar chart using the same data.

# Answer Key

## Worksheet 1

1) 400 + 80 + 2 | 2) 900 + 7 | 3) 1,000 + 200 + 5 | 4) 7,000 + 400 + 30 | 5) 9,000 + 10 + 8

6) 543 | 7) 814 | 8) 1,250 | 9) 3,094 | 10) 672

## Worksheet 2

1) 75 2) 45 3) 346 4) 530 5) 103 6) 224 7) 375 8) 441 9) 90 10) 625

## Worksheet 3

1) < 2) < 3) > 4) > 5) > 6) = 7) > 8) < 9) < 10) >

Ordering task: 3,405; 3,450; 3,504; 3,540

## Worksheet 4

1) 16, 19, 22 | 2) 64, 56, 48 | 3) 80, 160, 320 | 4) 25, 36, 49 | 5) 48, 96, 192 | 6) 50, 25, 5 | 7) 47, 95, 191 | 8) 1, 1/3, 1/9

## Worksheet 5

1) est 600, exact 602

2) est 600, exact 565

3) est 300, exact 294

4) est 1,000, exact 1,000

5) est 400, exact 426

6) est 800, exact 800

7) est 2,500, exact 2,500

8) est 80, exact 80

## Worksheet 6

1) 15

2) 194

3) 423

4) 845

5) 900

6) 3,225

## Worksheet 7

1) 312 2) 540 3) 798 4) 1,000 5) 486 6) 648 7) 1,386 8) 4,000

## Worksheet 8

1) 12 2) 52 r1 3) 112 4) 41 r4 5) 84 6) 97 r1 7) 84 8) 128

## Worksheet 9

1) 0.5 2) 0.75 3) 1/5 4) 1/8 5) 5/8 (0.625) 6) 0.4, 0.45, 1/2 7) 2 + 0.7 + 0.05

## Worksheet 10

1) 120 2) 24 3) Thursday 4) 13 5) 140 6) Open response, example: Reading peaked on Thursday and stayed above 20 every day.

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