Tulsa Math Adventure

Explore! Solve! Succeed!

Big idea: We can work with larger numbers and more complex fractions.

- Multiply and divide multi-digit numbers
- Add and subtract fractions
- Understand decimals (tenths, hundredths)
- Measure angles
- Solve multi-step problems

Focus: multiplication, division, fractions

Questions:

- “What does this problem *mean*?”
- “Can you draw or model it?”
- “How are multiplication and division connected?”
- “What does this fraction represent?”

Sentence stems:

- “This problem is asking me to…”
- “I used groups/arrays because…”
- “The fraction means ___ out of ___.”
- “I know my answer is reasonable because…”

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Priority Standard

4.N.2 Solve real-world and mathematical problems using multiplication and division.	**4.N.2.1** - Demonstrate fluency with multiplication and division facts with factors up to 12.
	4.N.2.2 - Multiply 3-digit by 1-digit and 2-digit by 2-digit whole numbers, using various strategies, including but not limited to standard algorithms.
	4.N.2.3 - Estimate products of 3-digit by 1-digit and 2-digit by 2-digit whole number factors using a variety of strategies (e.g., rounding, front end estimation, adjusting, compatible numbers) to assess the reasonableness of results. Explore larger numbers using technology to investigate patterns.
	4.N.2.4 - Apply and analyze models to solve multi-step problems requiring the use of addition, subtraction, and multiplication of multi- digit whole numbers. Use various strategies, including the relationship between operations, the use of appropriate technology, and the context of the problem to assess the reasonableness of results.
	4.N.2.5 - Use strategies and algorithms (e.g., mental strategies, standard algorithms, partial quotients, repeated subtraction, the commutative, associative, and distributive properties) based on knowledge of place value, equality, and properties of operations to divide a 3-digit dividend by a 1-digit whole number divisor, with and without remainders

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1: Build Large Numbers

Standard: 4.N.2.1 – Represent and compare whole numbers through millions

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Materials:

Playing cards, sticky notes, paper

Time:

10–15 minutes

Activity:

Use playing cards, sticky notes, or paper to create the largest 6-digit number possible. Then write the number in standard form, word form, and expanded form.

Example:

Cards drawn: 4, 8, 3, 5, 2, 1
Largest number: **854,321**

Then represent it in:

- Standard Form: 854,321
- Word Form: Eight hundred fifty-four thousand, three hundred twenty-one
- Expanded Form: 800,000 + 50,000 + 4,000 + 300 + 20 + 1

Show your work here!

Tips & Prompts to Extend Thinking:

- Why did you put that digit first?
- What digit has the greatest value?
- How would you write this number in words?

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2: Compare Big Numbers

Standard**:** 4.N.2.1 – Compare whole numbers through millions

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Materials:

Deck of cards, number cards, sticky notes, or paper

Time:

10 minutes

Activity:

Create 6-digit numbers using cards or number cards. Compare the numbers using >, <, or = and explain how place value helped you decide which number is greater.

Example:

Player 1: 675,432
Player 2: 658,999
675,432 > 658,999

Show your work here!

Tips & Prompts to Extend Thinking:

- Which place value helped you decide?
- How do you know this number is greater?
- Can you create an even larger number?

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3: Round It Up!

Standard**:** 4.N.2.2 – Round whole numbers

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Materials:
Household items, receipts, signs

Time:
10–15 minutes

Activity:
Go on a “number hunt” around the house or neighborhood. Find numbers on food boxes, mail, signs, receipts, or license plates and practice rounding them.

Example:
A cereal box says 347,892 prizes entered.
Rounded to nearest thousand: **348,000**

Show your work here!

Tips & Prompts to Extend Thinking:

- What place are you rounding to?
- Would this round up or down?
- What number is it closest to?

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4: Estimate the Total

Standard**:** 4.N.2.2 – Use rounding to estimate sums and differences



Materials:

Grocery ads, pantry items, or store apps

Time:

10 minutes

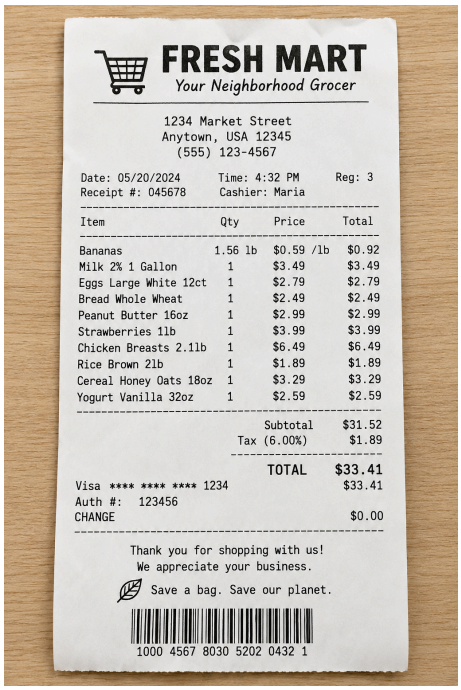
Activity:

Use grocery ads, store apps, or pantry items to estimate the total cost of several items. Round the prices first to help make a quick estimate.

Example:

Milk: $3.49 → $3
Bread: $2.49 → $2
Strawberries: $3.99 → $4
Estimated total: **$9**

Show your work here!



FRESH MART
Your Neighborhood Grocer

1234 Market Street
Anytown, USA 12345
(555) 123-4567

Date: 05/20/2024 Time: 4:32 PM Reg: 3
Receipt #: 045678 Cashier: Maria

Item	Qty	Price	Total
Bananas	1.56 lb	$0.59 /lb	$0.92
Milk 2% 1 Gallon	1	$3.49	$3.49
Eggs Large White 12ct	1	$2.79	$2.79
Bread Whole Wheat	1	$2.49	$2.49
Peanut Butter 16oz	1	$2.99	$2.99
Strawberries 1lb	1	$3.99	$3.99
Chicken Breasts 2.11lb	1	$6.49	$6.49
Rice Brown 2lb	1	$1.89	$1.89
Cereal Honey Oats 18oz	1	$3.29	$3.29
Yogurt Vanilla 32oz	1	$2.59	$2.59

Subtotal $31.52
Tax (6.00%) $1.89
TOTAL $33.41

Visa **** **** **** 1234 $33.41
Auth #: 123456
CHANGE $0.00

Thank you for shopping with us!
We appreciate your business.
Save a bag. Save our planet.

1000 4567 8030 5202 0432 1

Tips & Prompts to Extend Thinking:

- About how much will the groceries cost?
- What did you round each item to?
- Was your estimate reasonable?

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5: School Supply Addition

Standard: 4.N.2.3 – Add whole numbers with regrouping

Materials:
Store ads, school supply lists, receipts, or paper

Time:
15 minutes

Activity:
Use school supply prices from store ads or online shopping sites to add large numbers. Find the total cost of several school supplies and show your work by lining up place values correctly.

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Show your work here!



Tips & Prompts to Extend Thinking:

- How did you solve the problem?
- Did you need to regroup?
- How can you check your answer?

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6: Household Number Subtraction

Standard**:** 4.N.2.3 – Subtract whole numbers with regrouping

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Materials:

Junk mail, grocery ads, receipts, food boxes, or paper

Time:

15 minutes

Activity:

Find large numbers on receipts, ads, food boxes, or mail. Choose two numbers and subtract to find the difference. Show your work clearly and check your answer.

Example:

Family Team A scored 98 points.
Team B scored 76 points.
98 − 76 = **22**

Show your work here!

Tips & Prompts to Extend Thinking:

- What numbers did you choose?
- Did you need to regroup?
- How can you check your answer?

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7: Multi-Step Word Problems

Standard**:** 4.N.2.4 – Solve real-world addition and subtraction problems

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Materials:

Store ads or restaurant menus

Time:

15–20 minutes

Activity:

Use store ads, menus, or prices to solve real-world problems with more than one step. Add and subtract numbers to stay within a budget or find how much money is left. Show your work and explain your thinking.

Example:

Pizza: $24
Drinks: $11
Decorations: $18
Total: 24 + 11 + 18 = 53
Budget: $60
Money left: 60 − 53 = **$7**



Show your work here!

Tips & Prompts to Extend Thinking:

- What should you solve first?
- What operation will you use?
- How do you know your answer is reasonable?

FOURTH GRADE 4

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8: Multiplication Practice

Standard: 4.N.2.5 – Multiply multi-digit whole numbers

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Materials:

LEGOs, snacks, coins, or small objects

Time:

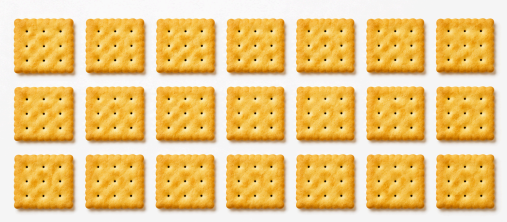
15 minutes

Activity:

Use LEGOs, coins, crackers, buttons, or other small objects to build arrays with rows and columns. Write a multiplication equation to match each array you create.

Example:

4 rows of 8 LEGOs
4 × 8 = **32**
OR
3 rows of 7 crackers
3 × 7 = **21**



Show your work here!

Tips & Prompts to Extend Thinking:

- How many rows are there?
- What multiplication equation matches?
- How does the model help?

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9: Real-Life Multiplication

Standard: 4.N.2.5 – Solve multiplication problems in real-world situations

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Materials:

Menus, store ads, or online shopping sites

Time:

15–20 minutes

Activity:

Use menus, store ads, or shopping websites to solve multiplication problems about real-life situations. Find the total cost of buying multiple items and show your work using equations, drawings, or models.

Example:

A family orders 4 meals costing $13 each.
4 × 13 = **$52**



Show your work here!

Tips & Prompts to Extend Thinking:

- How many groups are there?
- What does the product represent?
- Could you solve it another way?

FOURTH GRADE 4

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10: Backyard Math Olympics

Standards: 4.N.2.1–4.N.2.5

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Materials:

Balls, toys, measuring tape, stopwatch, paper, or household objects

Time:

20 minutes

Activity:

Create your own “Math Olympics” using activities like jumping, throwing, stacking, or racing. Record scores, distances, times, or totals and use place value, rounding, addition, subtraction, and multiplication to solve math challenges.

Example:

- Jump rope 24 times in 3 rounds
  24 × 3 = 72 jumps
- Measure two toy car races:
  145 inches and 132 inches
  145 − 132 = 13 inches farther
- Round a race time of 38 seconds to the nearest ten:
  40 seconds

Show your work here!

Tips & Prompts to Extend Thinking:

- What math skills did you use today?
- Which challenge was the hardest?
- How did you solve the problem?

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11: Place Value Puzzle

Standard: 4.N.2.1 – Represent whole numbers through millions

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Materials:

Sticky notes, paper, or playing cards

Time:

10 minutes

Activity:

Create a “mystery number” game using sticky notes or paper. One person describes the value of digits while the other guesses the number.

Example:

Clues:

- The digit 7 is worth 70,000
- The digit 2 is in the hundreds place
- The number has 6 digits

Possible number: **374,281**

Show your work here!

Tips & Prompts to Extend Thinking:

- What is the value of the 7?
- Which digit is in the hundred thousands place?

- How would you say this number?

12: Place Value Build Challenge

Standard: 4.N.2.1 – Represent numbers in expanded form

Materials:
Playing cards, sticky notes, paper, coins, or small household objects

Time:
10–15 minutes

Activity:
Create a large number using cards, objects, or written digits. Then break the number apart into expanded form and explain the value of each digit.

Example:
Number created: 562,314

Expanded Form:
500,000 + 60,000 + 2,000 + 300 + 10 + 4

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Show your work here!

Tips & Prompts to Extend Thinking:

- What does this digit represent?

- How do you know?
- Can you write it another way?

13: Number Line Rounding

Standard: 4.N.2.2 – Round whole numbers



Materials:

Sidewalk chalk, tape, or string

Time:

10–15 minutes

Activity:

Create a giant number line outside with chalk or tape. Stand on numbers and decide where they round.

Example:

Place the number **48,721** between 48,000 and 49,000.
Rounded number: **49,000**

Show your work here!

Tips & Prompts to Extend Thinking:

- What numbers is it between?

- Which benchmark is it closer to?
- Why did it round that way?

14: Estimate and Solve

Standard**:** 4.N.2.2 – Estimate sums and differences

Materials:
Menus, ads, store apps, or receipts

Time:
15 minutes

Activity:
Use restaurant menus, store ads, or online shopping carts to estimate totals before calculating exact amounts.

Example:
Burger: $8.75 → $9
Drink: $2.40 → $2
Fries: $3.60 → $4
Estimated total: **$15**
Exact total: **$14.75**

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Show your work here!

Tips & Prompts to Extend Thinking:

- Was your estimate close?

- Why is estimation helpful?
- Would you change your estimate?

15: Addition Strategy Challenge

Standard**:** 4.N.2.3 – Add multi-digit whole numbers

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Materials:

Dice, playing cards, paper, pencil

Time:

15–20 minutes

Activity:

Roll dice or use cards to create addition problems. Solve them using two different strategies.

Example:

Number cards: 3,482 + 1,759
Strategy 1: Standard Algorithm
Strategy 2: Partial Sums
Answer: **5,241**

Show your work here!

Tips & Prompts to Extend Thinking:

- Which strategy was easier?

- Did both methods give the same answer?
- Why does that make sense?

16: Subtraction Detective

Standard**:** 4.N.2.3 – Subtract multi-digit whole numbers



Materials:

Sticky notes or index cards

Time:

15 minutes

Activity:

Become a “math detective” and solve mystery subtraction problems hidden around the house.

Example:

Mystery clue:
“You had 5,000 points and used 2,675 points. How many are left?”
5,000 − 2,675 = **2,325**

Check:
2,325 + 2,675 = 5,000

Show your work here!

Tips & Prompts to Extend Thinking:

- How can you prove your answer is correct?

- What happened when you regrouped?
- Does your answer make sense?

17: Grocery Store Math

Standard**:** 4.N.2.4 – Solve real-world addition and subtraction problems



Materials:

Grocery ads, store apps, or pantry items

Time:

15–20 minutes

Activity:

Plan a pretend grocery shopping trip with a budget.

Example:

Budget: $50
Milk: $4.29
Bread: $3.49
Fruit: $8.75
Pizza: $12.99
Total: $29.52
Money left: **$20.48**

Show your work here!

Tips & Prompts to Extend Thinking:

- How much would all the items cost?
- How much change would you get back?

- Which item costs the most?

18: Area Model Multiplication

Standard: 4.N.2.5 – Multiply multi-digit whole numbers

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Materials:

Graph paper, tiles, LEGOs, crackers, or cereal pieces

Time:

15–20 minutes

Activity:

Use graph paper, tiles, LEGOs, or crackers to build area models.

Example:

23 × 14
Break apart:
20 + 3
10 + 4
Partial products:
20×10 = 200
20×4 = 80
3×10 = 30
3×4 = 12
Total: **322**

Show your work here!

Tips & Prompts to Extend Thinking:

- What does each section represent?

- How do the partial products help?
- Can you solve it another way?



19: Multiplication Fact Fluency

Standard: 4.N.2.5 – Develop multiplication fluency

Materials:
Flashcards, cards, dice, or game boards

Time:
10 minutes

Activity:
Play multiplication games like card war, bingo, or fact scavenger hunts.

Example:
Flip two cards:
6 and 7
6 × 7 = **42**

Show your work here!

Tips & Prompts to Extend Thinking:

- What strategy helped you?
- Which facts are easiest?
- Which facts still need practice?

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20: Real-World Math Project

Standards: 4.N.2.1–4.N.2.5

Materials:

Maps, travel brochures, internet, paper, pencil

Time:

20–30 minutes

Activity:

Plan a pretend summer trip using maps, websites, brochures, or travel apps.

Example:

Family of 4 going to a water park:
Tickets: 4 × $28 = $112
Gas estimate: $45
Food estimate: $60
Estimated total: **$217**

Show your work here!

Tips & Prompts to Extend Thinking:

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- What math did you use?
- How did estimation help?
- What would happen if more people joined the trip?

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21: Largest Number Challenge

Standard**:** 4.N.2.1 – Represent and compare whole numbers through millions

Materials:

Playing cards, sticky notes, or index cards

Time:

10 minutes

Activity:

Use digit cards, sticky notes, or a deck of cards to build the largest and smallest numbers possible.

Example:

Digits: 2, 4, 6, 7, 8, 9
Largest Number: **987,642**
Smallest Number: **246,789**

Show your work here!

Tips & Prompts to Extend Thinking:

- Why did you put that digit first?

- How can you make the number larger?
- What changes the value the most?

22: Place Value Mystery Number

Standard: 4.N.2.1 – Identify place value relationships



Materials:

Sticky notes, whiteboard, or paper

Time:

10–15 minutes

Activity:

Play a “guess my number” game using place value clues.

Example:

Clues:

- My number has 6 digits
- The digit 5 is worth 50,000
- The digit 2 is in the ones place
- My number is greater than 350,000

Possible answer: **452,812**

Show your work here!

Tips & Prompts to Extend Thinking:

- What clues helped the most?

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- Can you create your own mystery number?
- What place value gives the biggest hint?

23: Rounding Scavenger Hunt

Standard**:** 4.N.2.2 – Round whole numbers

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Materials:

Receipts, labels, ads, or household items

Time:

15 minutes

Activity:

Search your house, grocery store, or neighborhood for numbers to round.

Example:

Price tag: **$47.89**
Rounded to nearest dollar: **$48**
House number: **3,482**
Rounded to nearest thousand: **3,000**

Show your work here!

Tips & Prompts to Extend Thinking:

- What place are you rounding to?
- Why did you round up?

- What number is it closest to?

24: Estimate the Difference

Standard: 4.N.2.2 – Estimate differences using rounding



Materials:

Sports scores, receipts, menus, or ads

Time:

10–15 minutes

Activity:

Use sports scores, receipts, or prices to estimate differences mentally before solving exactly.

Example:

Team A scored 92 points.
Team B scored 61 points.
Estimate:
90 − 60 = **30**
Exact answer:
92 − 61 = **31**

Show your work here!

Tips & Prompts to Extend Thinking:

- About how much is left?
- Was your estimate close?
- What helped you estimate quickly?

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25: Addition Word Problems

Standard: 4.N.2.3 – Add multi-digit whole numbers

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Materials:
Sports stats, brochures, magazines, or internet

Time:
15–20 minutes

Activity:
Use travel brochures, sports statistics, or amusement park attendance numbers to s

Example:
An amusement park had 12,458 visitors on Saturday and 15,672 visitors on Sunday.
12,458 + 15,672 = **28,130 visitors**

Show your work here!

Tips & Prompts to Extend Thinking:

- What information is important?
- How did you solve it?
- Can you check your answer?

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26: Subtraction Story Problems

Standard**:** 4.N.2.3 – Subtract multi-digit whole numbers

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Materials:
Paper, whiteboard, or recording device

Time:
15 minutes

Activity:
Create your own subtraction story using favorite topics like sports, pets, gaming, or v

Example:
A stadium had 45,000 fans. After halftime, 6,275 people left. How many fans stayed?
45,000 − 6,275 = **38,725**

Show your work here!

Tips & Prompts to Extend Thinking:

- What does the answer represent?
- How did you know to subtract?
- Can someone else solve your problem?

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27: Two-Step Problem Solving

Standard: 4.N.2.4 – Solve multi-step real-world problems

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Materials:

Tickets, menus, ads, or paper

Time:

20 minutes

Activity:

Plan a mini event, sports tournament, or movie night using math to solve two-step problems.

Example:

A theater sold 245 tickets on Friday and 318 tickets on Saturday. Each ticket cost $9.
Step 1:
245 + 318 = 563 tickets
Step 2:
563 × 9 = **$5,067**

Show your work here!

Tips & Prompts to Extend Thinking:

- What should you solve first?
- What is the problem asking?
- How do you know your answer is reasonable?

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28: Multiplication Match-Up

Standard: 4.N.2.5 – Multiply multi-digit whole numbers

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Materials:

Index cards, sticky notes, or digital flashcards

Time:

10–15 minutes

Activity:

Create a matching game using multiplication equations and products.

Example:

Cards:

- 24 × 6
- 18 × 7
- 144
- 126

Students match:

24 × 6 = 144
18 × 7 = 126

Show your work here!

Tips & Prompts to Extend Thinking:

- What strategy did you use?
- Can you estimate the answer first?
- How do you know your answer is correct?

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29: Multiplication in Real Life

Standard: 4.N.2.5 – Solve real-world multiplication problems

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Materials:
Household objects, menus, tickets, or ads

Time:
15–20 minutes

Activity:
Use multiplication to solve everyday problems involving tickets, seating rows, snacks

Example:
A concert has 16 rows with 24 seats in each row.
16 × 24 = **384 seats**

Show your work here!

Tips & Prompts to Extend Thinking:

- What does the product represent?
- How many groups are there?
- Could you solve it another way?

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30: Math Review Challenge

Standards: 4.N.2.1–4.N.2.5

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Materials:

Household items, cards, sticky notes, or whiteboard

Time:

20–30 minutes

Activity:

Create a “Math Olympics” with different stations around the house reviewing place va
subtraction, and multiplication.

Example:

Station 1: Round a grocery price
Station 2: Solve an addition problem
Station 3: Build the largest number possible
Station 4: Solve a multiplication challenge

Show your work here!

Tips & Prompts to Extend Thinking:

- Which skill feels easiest?
- Which strategy helped you most?
- What do you still want to practice?

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31: Number Form Challenge

Standard**:** 4.N.2.1 – Represent whole numbers in multiple forms

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Materials:

Receipts, signs, magazines, or paper

Time:

15 minutes

Activity:

Use house numbers, receipts, or license plates to practice writing numbers in different forms.

Example:

Number: **608,421**

- Standard Form: 608,421
- Word Form: Six hundred eight thousand, four hundred twenty-one
- Expanded Form: 600,000 + 8,000 + 400 + 20 + 1

Show your work here!

Tips & Prompts to Extend Thinking:

- What does this digit represent?
- Can you say the number in word form?

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32: Greater Than, Less Than

Standard: 4.N.2.1 – Compare whole numbers

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Materials:
Playing cards, dice, or number cards

Time:
10 minutes

Activity:
Compare pairs of numbers using >, <, or =. Use place value to decide which number is greater and explain your thinking.

Example:
Player 1: 542,189
Player 2: 538,921
542,189 > 538,921

Show your work here!

Tips & Prompts to Extend Thinking:

- Which place value helped you decide?
- Why is this number greater?
- Can you make the numbers equal?

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33: Round and Estimate

Standard: 4.N.2.2 – Use rounding to estimate

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Materials:
Store ads, apps, or shopping websites

Time:
15 minutes

Activity:
Estimate totals while shopping online or planning a pretend purchase.

Example:
Shoes: $42
Shirt: $18
Hat: $11
Estimate:
40 + 20 + 10 = **$70**
Exact total:
$71

Show your work here!

Tips & Prompts to Extend Thinking:

- What did you round to?
- Was your estimate close?
- How do you know?

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34: Addition Across Place Values

Standard**:** 4.N.2.3 – Add multi-digit whole numbers

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Materials:

Fitness tracker, sports stats, or paper

Time:

15–20 minutes

Activity:

Use sports scores, travel distances, or step counts to practice addition with regrouping.

Example:

Monday steps: 8,759
Tuesday steps: 7,684
8,759 + 7,684 = **16,443**

Show your work here!

Tips & Prompts to Extend Thinking:

- Why did you regroup?
- How can you check your answer?
- What strategy helped you most?

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35: Subtraction Strategy Practice

Standard**:** 4.N.2.3 – Subtract multi-digit whole numbers

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Materials:

Whiteboard, sticky notes, or pape

Time:

15–20 minutes

Activity:

Solve subtraction problems using two different methods such as standard algorithm a

Example:

6,000 − 2,784
Method 1: Standard Algorithm
Method 2: Count Up Strategy
Answer: **3,216**

Show your work here!

Tips & Prompts to Extend Thinking:

- Which strategy was easier?
- Did both methods work?
- Why

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36: Solve and Explain

Standard**:** 4.N.2.4 – Solve real-world problems involving addition and subtraction

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Materials:

Phone/tablet (optional), whiteboard, paper, pencil

Time:

15–20 minutes

Activity:

Solve a real-world problem and record a video, voice note, or verbal explanation of your thinking.

Example:

The zoo had 3,425 visitors on Saturday and 2,978 visitors on Sunday. How many visitors came altogether?
3,425 + 2,978 = **6,403 visitors**
Explain:
“I added the ones first, regrouped, and continued adding by place value.”

Show your work here!

Tips & Prompts to Extend Thinking:

- Why did you choose that operation?
- What does your answer mean?
- How can you prove it?

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37: Multiplication Array Art

Standard: 4.N.2.5 – Multiply whole numbers

Materials:
Graph paper, crayons, LEGOs, stickers, or blocks

Time:
20 minutes

Activity:
Create colorful array art using graph paper, LEGOs, stickers, or building blocks.



Example:
6 rows of 8 squares
6 × 8 = **48**

Show your work here!

Tips & Prompts to Extend Thinking:

- How many rows and columns are there?
- What multiplication equation matches?
- How does the model help?

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38: Multiplication Story Problems

Standard: 4.N.2.5 – Solve real-world multiplication problems

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Materials:
Toys, snacks, household objects, or paper

Time:
15–20 minutes

Activity:
Create multiplication stories using toys, snacks, sports teams, or collections around t

Example:
There are 7 baskets with 12 apples in each basket.
7 × 12 = **84 apples**

Show your work here!

Tips & Prompts to Extend Thinking:

- What does the product represent?
- How many groups are there?
- Could someone else solve your problem?

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39: Mixed Math Review

Standards: 4.N.2.1–4.N.2.5

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Materials:

Sticky notes, cards, whiteboard, or paper

Time:

20–25 minutes

Activity:

Create a “Math Choice Board” with different mini challenges involving place value, ro
subtraction, and multiplication.

Example:

- Round 4 prices from a grocery ad
- Build the largest number possible using digit cards
- Solve a multiplication challenge
- Compare two large numbers

Show your work here!

Tips & Prompts to Extend Thinking:

- Which problem was most challenging?
- What strategy helped you?
- How did you check your work?

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40: Real-Life Math Mission

Standards: 4.N.2.1–4.N.2.5

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Materials:
Menus, ads, internet, or paper

Time:
20–30 minutes

Activity:
Plan a pretend picnic, birthday party, or road trip using math to estimate costs and so
problems.

Example:
Pizza: 3 pizzas × $14 = $42
Drinks: $18
Dessert: $12
Total: **$72**

Show your work here!

Tips & Prompts to Extend Thinking:

- What math did you use today?
- How did estimation help?
- Would your plan stay within budget?

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41: Place Value War

Standard: 4.N.2.1 – Compare whole numbers through millions

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Materials:
Digit cards, playing cards, or sticky notes

Time:
10–15 minutes

Activity:
Use digit cards to create and compare large numbers in a game format.

Example:
Player 1: 785,432
Player 2: 758,999
785,432 > 758,999

Show your work here!

Tips & Prompts to Extend Thinking:

- Why is this number greater?
- What digit made the biggest difference?
- How could you make your number larger?

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42: Expanded Form Relay

Standard: 4.N.2.1 – Represent numbers in expanded form

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Materials:
Index cards, sticky notes, or whiteboard

Time:
10 minutes

Activity:
Turn expanded form into a relay race or matching game with cards.

Example:
Number: 582,471
Expanded Form:
500,000 + 80,000 + 2,000 + 400 + 70 + 1

Show your work here!

Tips & Prompts to Extend Thinking:

- What does each digit represent?
- How do you know?
- Can you write it another way?

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43: Estimate the Crowd

Standard**:** 4.N.2.2 – Round and estimate whole numbers

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Materials:
Photos, magazines, or household objects

Time:
10–15 minutes

Activity:
Estimate groups of objects, people, or items in pictures, stores, or outdoor spaces.

Example:
Estimate the number of books on a shelf:
About **120 books**

Show your work here!

Tips & Prompts to Extend Thinking:

- What makes your estimate reasonable?
- Did you round up or down?
- Could there be more or fewer?

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44: Addition Puzzle Paths

Standard: 4.N.2.3 – Add multi-digit whole numbers

Materials:
Sticky notes, index cards, or paper

Time:
15–20 minutes

Activity:
Create a puzzle path where each correct addition answer leads to the next clue.

Example:
4,782 + 3,459 = **8,241**
Correct answers move you through the maze.

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Show your work here!

Tips & Prompts to Extend Thinking:

- How did you solve this efficiently?
- Did you regroup?
- How can you verify your answer?

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45: Subtraction Escape Room

Standard**:** 4.N.2.3 – Subtract multi-digit whole numbers

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Materials:
Sticky notes, envelopes, or paper

Time:
15–20 minutes

Activity:
Solve subtraction clues hidden around the house to “unlock” the next challenge.

Example:
8,000 − 3,476 = **4,524**
The answer reveals the next clue location.

Show your work here!

Tips & Prompts to Extend Thinking:

- What clue did the answer help you unlock?
- How did regrouping help?
- What strategy worked best?

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46: Sports Score Math

Standard: 4.N.2.4 – Solve real-world addition and subtraction problems

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Materials:
Sports scores online, apps, newspaper, or TV

Time:
15 minutes

Activity:
Use real sports scores to create addition and subtraction problems.

Example:
Team A scored 98 points.
Team B scored 84 points.
98 − 84 = **14**

Show your work here!

Tips & Prompts to Extend Thinking:

- How many more points did one team score?
- What operation did you use?
- Why?

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47: Multiplication Bingo

Standard: 4.N.2.5 – Multiply whole numbers fluently



Materials:
Homemade bingo boards, counters, or paper

Time:
15–20 minutes

Activity:
Play multiplication bingo using products instead of numbers.

Example:
Caller says:
7 × 8
Players cover:
56

Show your work here!

Tips & Prompts to Extend Thinking:

- How did you solve it quickly?
- Which facts do you know automatically?
- Which facts need more practice?

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48: Build an Array City

Standard: 4.N.2.5 – Represent multiplication with arrays

Materials:
Graph paper, LEGOs, crayons, or blocks

Time:
20 minutes

Activity:
Design buildings or city blocks using multiplication arrays.

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Example:
Apartment building:
9 rows × 6 windows
9 × 6 = **54 windows**

Show your work here!

Tips & Prompts to Extend Thinking:

- How many rows are there?
- What multiplication equation matches?
- How does the array help?

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49: Restaurant Math

Standard**:** 4.N.2.4 & 4.N.2.5 – Solve real-world problems

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Materials:
Menus, takeout apps, or restaurant websites

Time:
20 minutes

Activity:
Use a menu to plan meals and calculate totals for groups.

Example:
4 meals costing $13 each
4 × 13 = **$52**
Add drinks:
$52 + $12 = **$64**

Show your work here!

Tips & Prompts to Extend Thinking:

- How much would 4 meals cost?
- What operation will you use?
- How can you estimate first?

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50: Multiplication Strategy Sort

Standard: 4.N.2.5 – Use multiplication strategies

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Materials:
Index cards, sticky notes, or whiteboard

Time:
15 minutes

Activity:
Sort multiplication problems by the strategy you would use (arrays, partial products, repeated addition, mental math).

Example:
24 × 5 → Mental Math
18 × 16 → Area Model

Show your work here!

Tips & Prompts to Extend Thinking:

- Why did you choose this strategy?
- Could another strategy work?
- Which strategy is most efficient?

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51: Number Comparison Race

Standard: 4.N.2.1 – Compare whole numbers

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Materials:
Cards, dice, whiteboard, or paper

Time:
10 minutes

Activity:
Race to compare pairs of large numbers using cards or dice.

Example:
643,982 ___ 641,998
643,982 > 641,998

Show your work here!

Tips & Prompts to Extend Thinking:

- What place helped you compare?
- Which number is greater?
- How do you know?

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52: Rounding Real Life

Standard: 4.N.2.2 – Apply rounding in real-world situations

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Materials:
Maps, receipts, labels, or internet

Time:
10–15 minutes

Activity:
Round prices, distances, or populations found online, on maps, or around the house.

Example:
Population: 482,761
Rounded to nearest thousand:
483,000

Show your work here!

Tips & Prompts to Extend Thinking:

- Why would someone round this number?
- What place value did you use?
- Would you round differently?

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53: Multi-Step Mission

Standard: 4.N.2.4 – Solve multi-step word problems

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Materials:
Household items, menus, or paper

Time:
20 minutes

Activity:
Complete a real-world challenge using two or more operations.

Example:
A camp ordered 24 boxes of snacks with 8 snacks in each box. They gave away 57 snacks.
24 × 8 = 192
192 − 57 = **135 snacks left**

Show your work here!

Tips & Prompts to Extend Thinking:

- What did you solve first?
- Why?
- How did you know your answer was reasonable?

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54: Create a Math Board Game

Standards: 4.N.2.1–4.N.2.5



Materials:

Paper, crayons, dice, markers, or index cards

Time:

20–30 minutes

Activity:

Design and play a homemade board game using math challenges.

Example:

Players roll dice and solve:

- Place value questions
- Rounding challenges
- Multiplication facts
- Addition and subtraction problems

Show your work here!

Tips & Prompts to Extend Thinking:

- What math skills are included?
- How do players win?
- Can others understand your directions?

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55: Summer Math Champion Challenge 🎉

Standards: 4.N.2.1–4.N.2.5

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Materials:

Cards, sticky notes, household items, or paper

Time:

20–30 minutes

Activity:

Complete a final “Summer Math Olympics” using all the skills practiced this summer.

Example:

Challenge stations:

- Build the largest number
- Round prices
- Solve a subtraction puzzle
- Complete a multiplication challenge
- Solve a real-world word problem

Show your work here!

Tips & Prompts to Extend Thinking:

- What skill improved the most?
- What math strategy helps you most?
- What are you proud of learning this summer?

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🇺🇸 America's 250th Birthday Math Challenge 🎆

4th Grade Summer Activity

Oklahoma Academic Standard: 4.N.2.2

Round whole numbers and use estimation strategies to solve problems.

🎉 Activity: "Plan the Party for 250!"

America is celebrating its **250th birthday**, and you are on the planning team! Your job is to help estimate supplies needed for a giant celebration.

🍔 Scenario

A town is hosting a celebration for **248 people**. Organizers want to estimate how many items they need.

Use rounding and estimation to solve these problems:

1️⃣ About how many hot dogs are needed if each person eats 2 hot dogs?

2️⃣ About how many water bottles are needed if each person drinks 3 bottles?

3️⃣ Fireworks are packed in boxes of 100. About how many fireworks are needed if the town wants 725 fireworks total?

4️⃣ The celebration budget is $4,872. Round the amount to the nearest thousand to estimate the budget.

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✏️ Materials

- Paper
- Pencil
- Optional calculator for checking work

⏰ Time

15–20 minutes

👨‍👩‍👧 Parent Tips

- Encourage your child to estimate before solving exactly
- Ask them to explain why they rounded up or down
- Celebrate different strategies and reasoning

💬 Sample Questions/Prompts

- “What place value are you rounding to?”
- “Why is estimation helpful?”
- “Would your estimate be enough for everyone?”
- “How do you know your answer is reasonable?”

⭐ Bonus Challenge

Create your own “America 250” celebration math problem using addition, subtraction, multiplication, or rounding!