Core Knowledge® MATHEMATICS

Adding and Subtracting within 1,000

Student Workbook

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Core Knowledge Mathematics™

Lesson 1: Compare, Count on, and Count Back

- Let's compare numbers and add or subtract.

Warm-up: Number Talk: Count Back

Find the value of each expression mentally.

- $586 - 6$

- $586 - 8$

- $434 - 5$

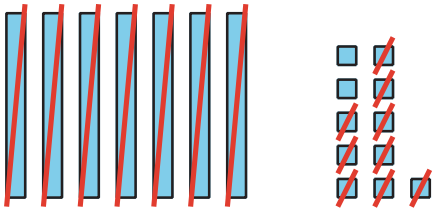
- $352 - 4$

1.1: Notice the Difference

Tyler and Elena were asked to find the value of $81 - 79$.
Their work is shown.

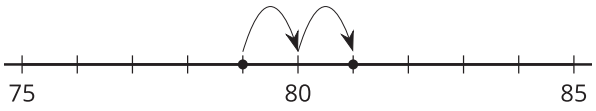
Tyler

$$81 - 70 = 11$$
$$11 - 9 = 2$$



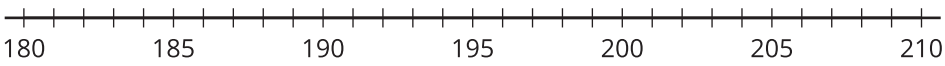
Elena

$$81 - 79 = 2$$



What do you notice? What do you wonder?

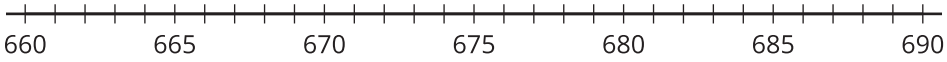
1. Locate and label 203 and 198 on the number line.



Compare using >, <, or =.

Find the value of $203 - 198$. Show your thinking.

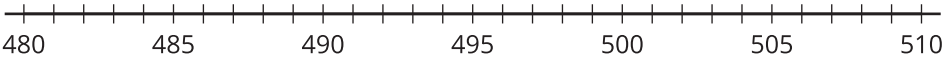
2. Locate and label 673 and 680 on the number line.



Compare using >, <, or =.

Find the value of $680 - 673$. Show your thinking.

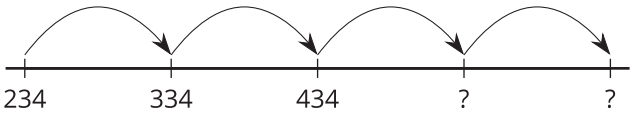
3. Locate and label 501 and 499 on the number line.



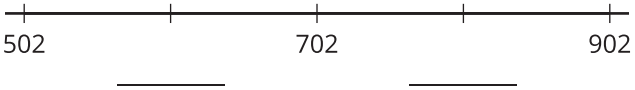
Find the value of $501 - 499$. Show your thinking.

4. Find the value of $400 - 396$. Show your thinking.

1.2: What's the Big Difference?

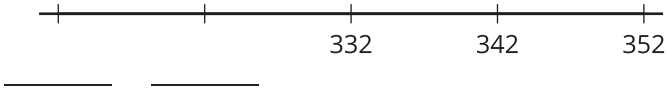


1. Fill in the missing numbers.



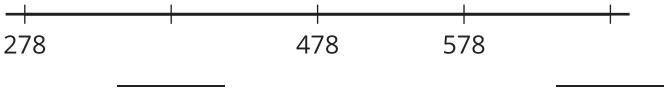
Does this number line show counting on by 10 or counting on by 100?

2. Fill in the missing numbers.



Does this number line show counting on by 10 or counting on by 100?

3. Fill in the missing numbers.



Does this number line show counting on by 10 or counting on by 100?

4. Fill in the missing numbers to show counting on by 10.

739, 749, _____, 769, _____

5. Explain how you can tell your numbers show counting on by 10 and not counting on by 100.

Lesson 2: Add and Subtract with Tens and Hundreds

- Let’s add and subtract tens or hundreds.

Warm-up: Number Talk: Add Multiples of 10

Find the value of each expression mentally.

- $34 + 20$

- $34 + 60$

- $58 + 30$

- $158 + 40$

2.1: Show It with Base-ten Blocks

Use your base-ten blocks to show each number. Then, roll a number cube to see how many tens or hundreds to add or subtract.

1. Show 297.

    a. Add _____ hundreds.

    b. Complete the equation: $297 + \_\_\_\_\_ = \_\_\_\_\_$

2. Show 432.

    a. Add _____ tens.

    b. $432 + \_\_\_\_\_ = \_\_\_\_\_$

3. Show 982.

    a. Subtract _____ tens.

    b. $982 - \_\_\_\_\_ = \_\_\_\_\_$

4. Show 351.

    a. Add _____ hundreds.

    b. Write an equation:

5. Show 805.

    a. Subtract ____ hundreds.

    b. Write an equation:

2.2: How Many with Base-ten Blocks and Equations

1. Mai has 2 hundreds, 2 tens, and 3 ones. Lin has 4 hundreds.

   Represent their values with base-ten blocks or diagrams.

   What is the value of their blocks altogether? Show your thinking.

2. Andre has 4 hundreds, 2 tens, and 8 ones.

   Represent his value with base-ten blocks or diagrams.

   Andre gives 2 hundreds to Clare.

   What is the value of his blocks now? Show your thinking.

3. Diego has 6 tens. Tyler has 8 hundreds, 3 tens, and 6 ones.

   What is the value of their blocks together? Show your thinking.

4. Elena has 5 hundreds, 7 tens, and 2 ones. She gives 2 tens to Kiran.

   What is the value of her blocks now? Show your thinking.

5. Priya has 6 hundreds, 5 tens, and 8 ones. Han gives her 3 hundreds.

   What is the value of her blocks now? Show your thinking.

6. Jada has 4 hundreds, 8 tens, and 2 ones. She gives 3 hundreds to Noah.

   What is the value of her blocks now? Show your thinking.

Lesson 3: Count on or Count Back to Subtract

- Let's find the difference between numbers.

Warm-up: Number Talk: Tens and Hundreds

Find the value of each expression mentally.

- $120 + 20$
- $120 + 200$
- $124 + 30$
- $124 + 300$

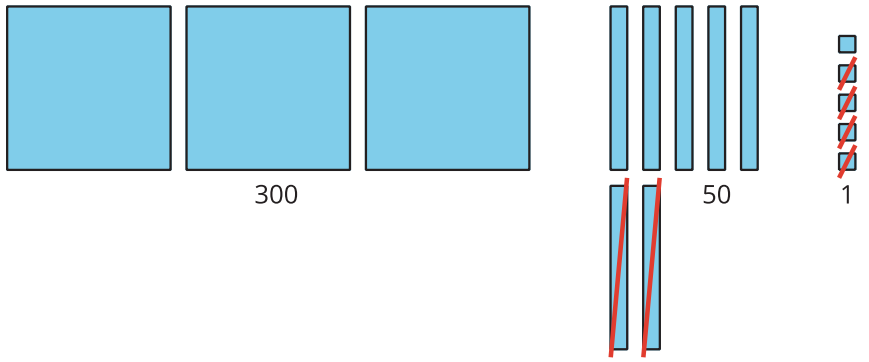
3.1: Jump Back, Back, Back

Jada and Andre found the value of $375 - 24$.

Here is their work.

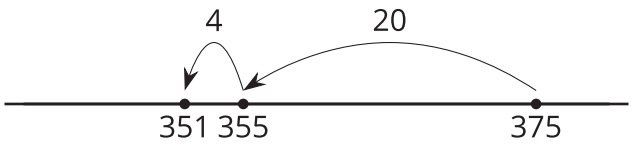
Jada's Work

$375 - 24 = 351$



Andre's Work

$375 - 20 = 355$
$355 - 4 = 351$
$375 - 24 = 351$



What do you notice? What do you wonder?

1. Try Andre's way to find the value of $189 - 73$.

   Show your thinking. Use a number line if it helps.

2. Find the value of $647 - 46$ in your own way.

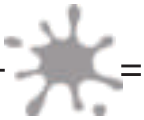
   Show your thinking. Use a number line if it helps.

3.2: Who Spilled Paint?

Oh no! Diego spilled paint on his paper and now he can't see all the numbers. Find the number hidden by the paint.

 + 540 = 1,000

Find the number that makes each equation true.

1. 250 +  = 1,000
2. 600 – 440 = 
3. 680 +  = 900
4.  + 590 = 1,000
5. 900 – 370 = 

1. _____
2. _____
3. _____
4. _____
5. _____

Lesson 4: Add and Subtract Three-digit Numbers in Different Ways

- Let's add and subtract three-digit numbers.

Warm-up: Number Talk: Count Back by Place

Find the value of each expression mentally.

- $586 - 100$

- $486 - 20$

- $457 - 200$

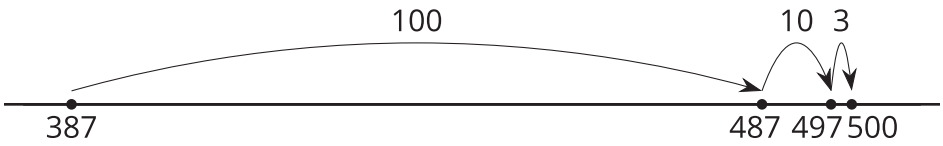
- $257 - 30$

4.1: Zero Tens and Zero Ones

Mai and Lin were asked to find the value of $500 - 387$.

Here is their work.

Mai's Work



$387 + ? = 500$

$387 + 100 = 487$

$487 + 10 = 497$

$497 + 3 = 500$

$100 + 10 + 3 = 113$

Lin's Work

$387 = 300 + 80 + 7$

$500 - 300 = 200$

$200 - 80 = 120$

$120 - 7 = 113$

Find the value of each expression.

Show your thinking.

1. Try Mai's way to find the value of $600 - 476$.

2. Try Lin's way to find the value of $400 - 134$.

4.2: Add or Subtract with Expanded Form

1. Andre and Diego showed their thinking with equations to find the value of $427 + 351$.

Andre's Work	Diego's Work
7 + 1 = 8 20 + 50 = 70 400 + 300 = 700 700 + 70 + 8 = 778	400 + 20 + 7 300 + 50 + 1 700 + 70 + 8 = 778

What is the same or different about their work?

Discuss with your partner.

2. Try Andre's way to find the value of $725 + 243$.

3. Try Diego's way to find the value of $863 - 432$.

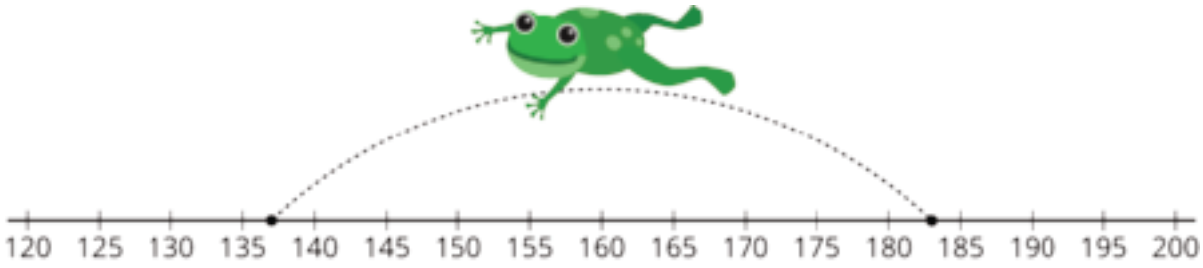
4. Choose your own way to find the value of $163 + 326$. Show your thinking.

5. Choose your own way to find the value of $692 - 571$. Show your thinking.

Section Summary

Section Summary

In this section of the unit, we compared three-digit numbers and looked at how addition can be used to find the difference, especially when numbers are close together. We added and subtracted by counting on or back by place and used expanded form to think about adding or subtracting using place value based strategies.

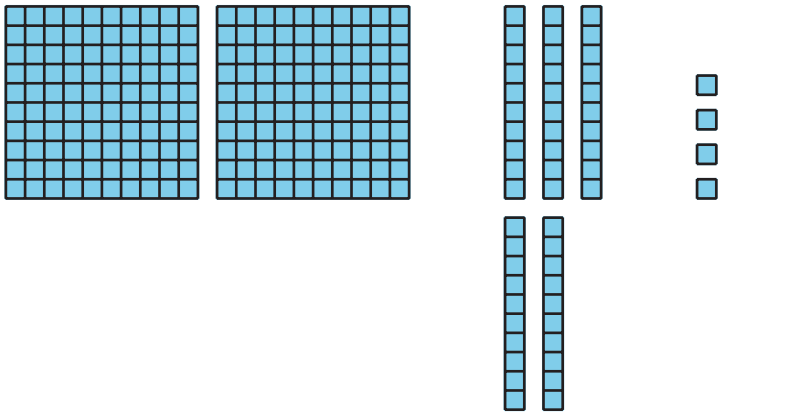


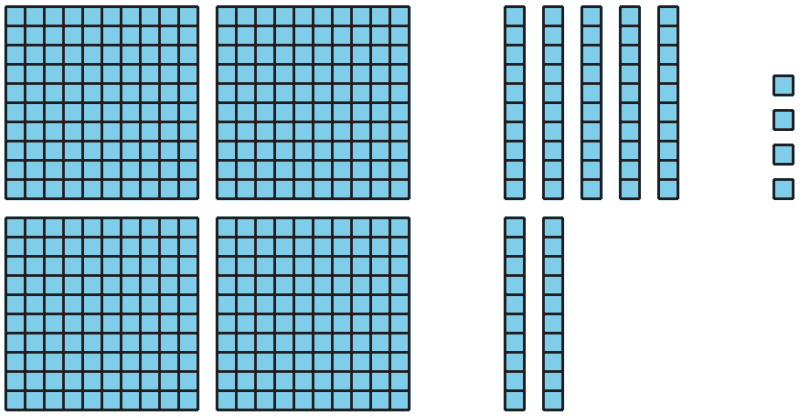
Lesson 5: Center Day 1

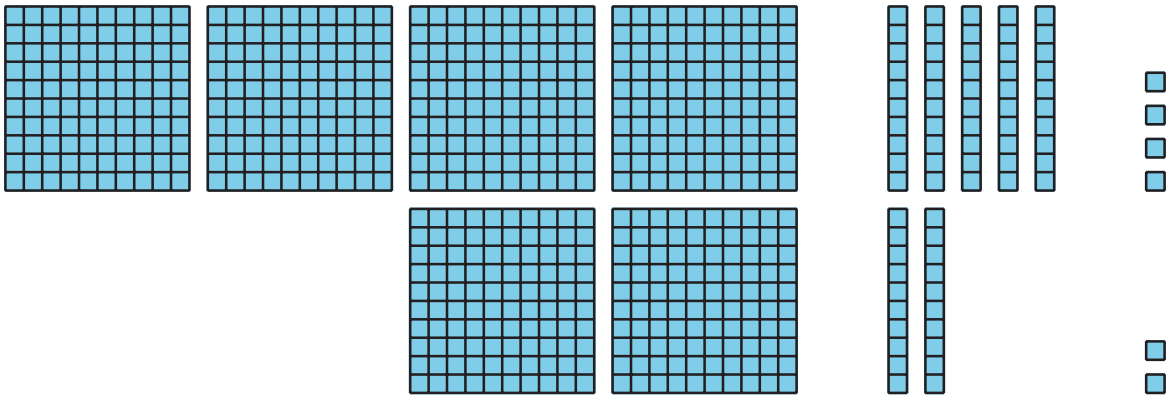
- Let's add numbers within 1,000.

Warm-up: How Many Do You See: Hundreds, Tens, and Ones

How many do you see? How do you see them?







5.2: Centers: Choice Time

Choose a center.

Five in a Row: Addition and Subtraction

Get Your Numbers in Order

Mystery Number

The Greatest of them All

Lesson 6: Use a Ten to Add Within 1,000

- Let's add three-digit numbers by composing a ten.

Warm-up: Number Talk: Numbers that Make 10

Find the value of each expression mentally.

- $28 + 2$

- $28 + 12$

- $67 + 3$

- $67 + 23$

6.1: Add Two-digit and Three-digit Numbers

1. Find the value of each sum.

Set 1	Set 2	Set 3
$245 + 15$	$134 + 26$	$351 + 19$
$247 + 23$	$133 + 37$	$356 + 24$
$249 + 31$	$138 + 42$	$355 + 35$

2. What patterns did you notice?

6.2: Card Sort: Perfect Ten

1. Match each three-digit number to a two-digit number. When you add your numbers together they should make a ten with no extra ones.

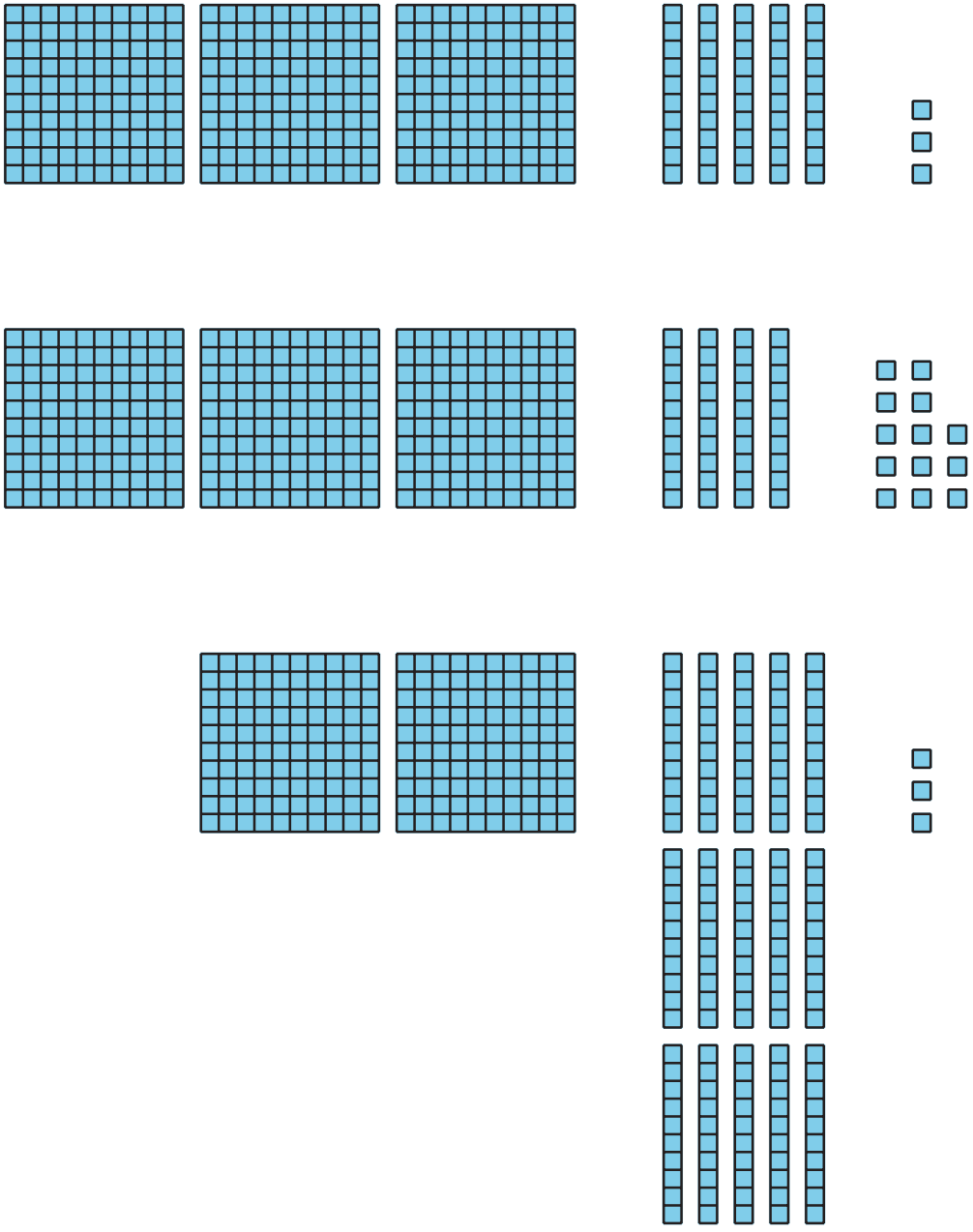
2. Pick 1 pair of numbers and find the value of their sum. Show your thinking.

Lesson 7: Compose a Larger Unit

- Let’s add three-digit numbers and compose tens or hundreds.

Warm-up: How Many Do You See: Are They the Same?

How many do you see? How do you see them?



7.1: Compose a Ten or a Hundred

1. Find the value of each expression. Show your thinking. Use base-ten blocks if it helps.

   a. $364 + 28$

   b. $364 + 82$

2. Compare your thinking with your partner.

7.2: Walk About and Add

Directions:

- Find a partner and record your numbers to make an expression.
- Discuss if you think you would need to compose a ten or a hundred when adding your numbers.
- Find the value of the sum. Show your thinking.

1. a. _____ + _____

   b. Will you need to compose a ten?

   Yes or No

   c. Will you need to compose a hundred?

   Yes or No

   d. Find the value of the sum. Show your thinking.

2. a. _____+ _____

b. Will you need to compose a ten?

Yes or No

c. Will you need to compose a hundred?

Yes or No

d. Find the value of the sum. Show your thinking.

3. a. _____ + _____

b. Will you need to compose a ten?

Yes or No

c. Will you need to compose a hundred?

Yes or No

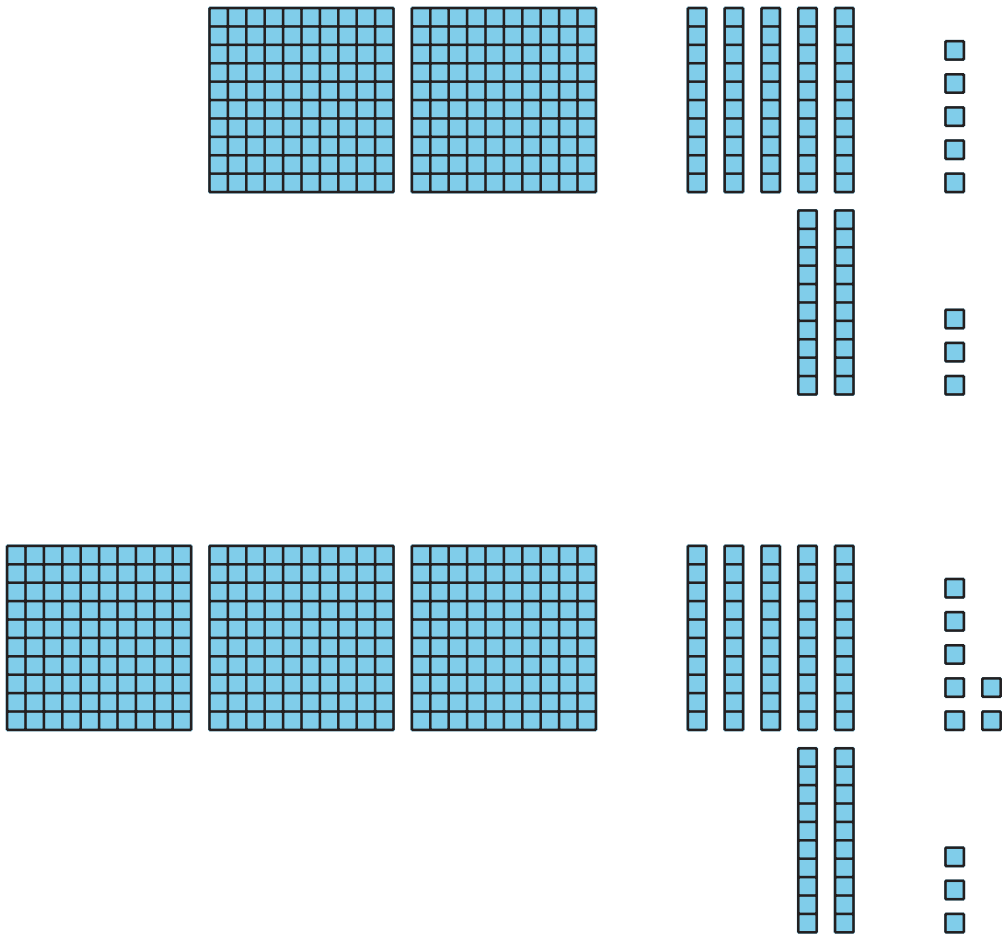
d. Find the value of the sum. Show your thinking.

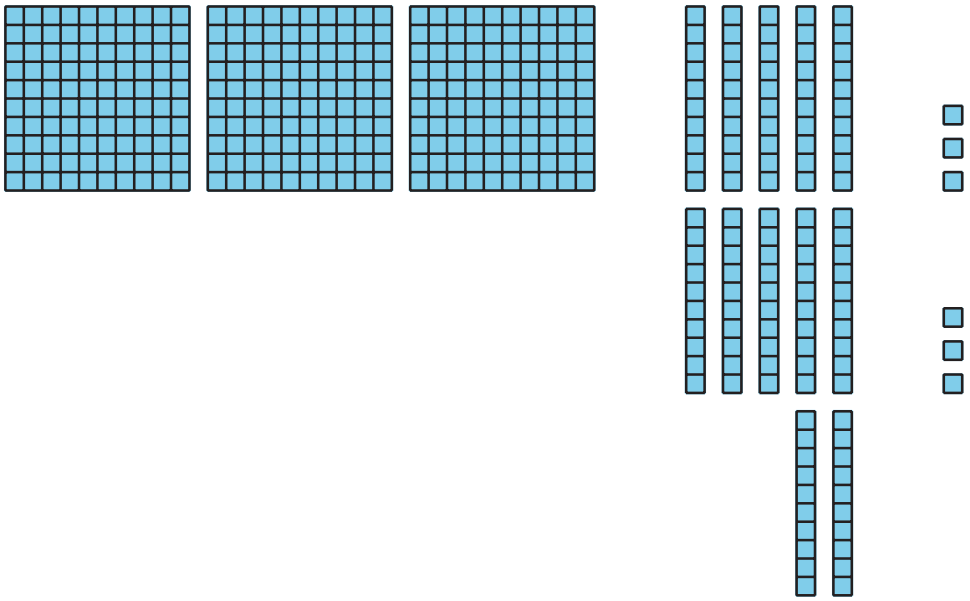
Lesson 8: Compose Tens and Hundreds to Add

- Let’s compose tens and hundreds to add.

Warm-up: How Many Do You See: Too Many Tens

How many do you see? How do you see them?





8.1: Compare the Sums

Find the value of each sum. Show your thinking. Use base-ten blocks if it helps.

1. $273 + 18$

2. $273 + 81$

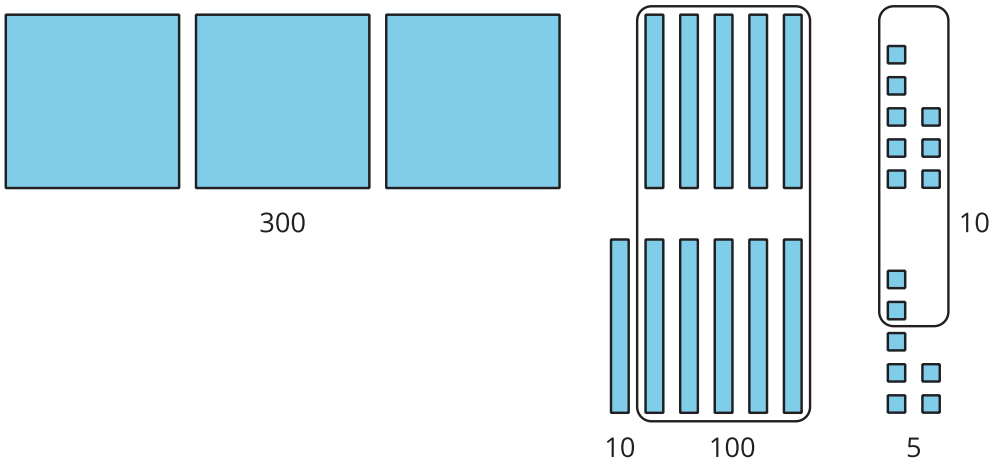
3. $273 + 88$

4. What was the same and different about the sums?

8.2: Different Ways to Show Your Thinking

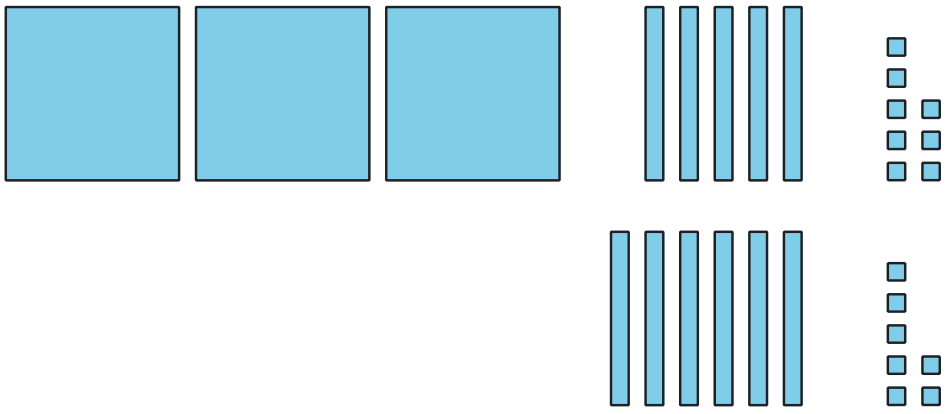
1. Priya and Lin were asked to find the value of $358 + 67$.

Priya's work



300 + 100 + 10 + 10 + 5
400 + 20 + 5 = 425

Lin's work



3 hundreds + 11 tens + 15 ones
11 tens = 110
15 ones = 15
300 + 110 + 15 = 425

What do you notice about their work? What is the same and different about their representations? Be prepared to explain your thinking.

2. Find the value of $546 + 86$.
   Show your thinking. Use base-ten blocks if it helps.

Lesson 9: Add Three-digit Numbers

- Let’s practice adding within 1,000.

Warm-up: Number Talk: Ten and Some More

Find the value of each expression mentally.

- $528 + 2$

- $528 + 7$

- $487 + 3$

- $487 + 8$

9.1: How Did You Add Three-digit Numbers?

Find the value of each expression. Show your thinking.

1. $384 + 409$

2. $757 + 152$

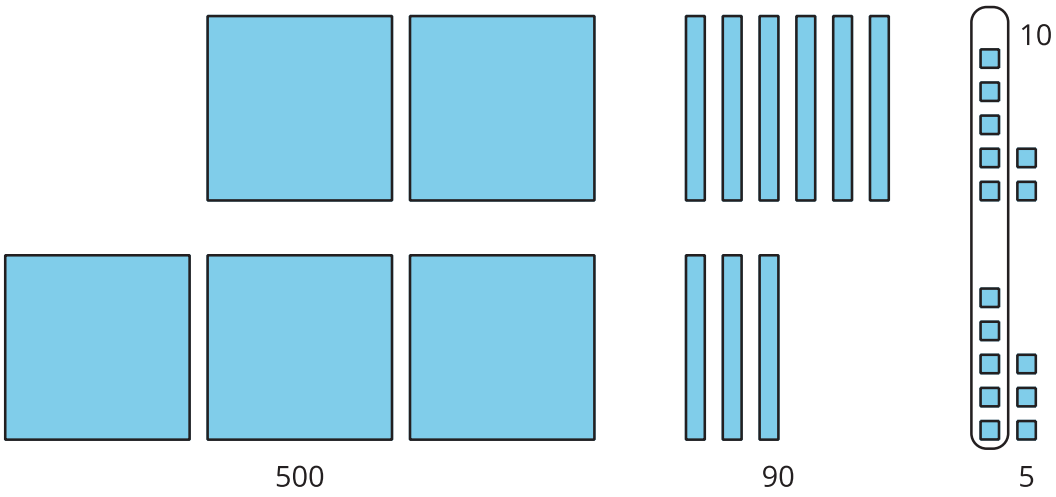
3. $262 + 438$

4. $575 + 166$

9.2: Analyze and Add

Noah and Kiran showed how they found the value of $267 + 338$.

Noah's work



500 + 90 + 5 = 595

Kiran's work

200 + 300 = 500
60 + 30 = 90
7 + 8 =15
500 + 90 + 15
500 + 90 + 10 + 5
500 + 100 + 5 = 605

1. How is Noah and Kiran's work the same? How is it different?

2. Which student found the correct value? Explain or show your thinking.

Lesson 10: Add within 1,000

- Let's find sums within 1,000 and explain our strategies.

Warm-up: Number Talk: Use Sums to Find Sums

Find the value of each expression mentally.

- $199 + 23$

- $198 + 24$

- $297 + 25$

- $395 + 27$

10.1: Card Sort: Three-digit Sums

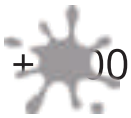
1. Sort the cards into 2 groups with your partner.
    - Make a group of expressions that you agree the value is less challenging to find.
    - Make another group of expressions that you agree the value is more challenging to find.
    - Keep any expressions together that you and your partner disagree on.
2. Choose an expression that you feel is less challenging.
   Find the value of the sum. Show your thinking.

3. Choose an expression that you feel is more challenging.
   Find the value of the sum. Show your thinking.

4. Discuss one card you and your partner disagreed on. If you felt the expression was more challenging, explain why. If you felt the expression was less challenging, explain your method.

10.2: Find the Unknown Value

Oh no! Diego spilled paint on his paper and now he can't see all the digits in each of his equations.



900 + 00 = 1,000

1. What three-digit number makes the equation true? Show your thinking.

5 0 + 430 = 1,000

2. What three-digit number makes the equation true? Show your thinking.

85 + 615 = 1,000

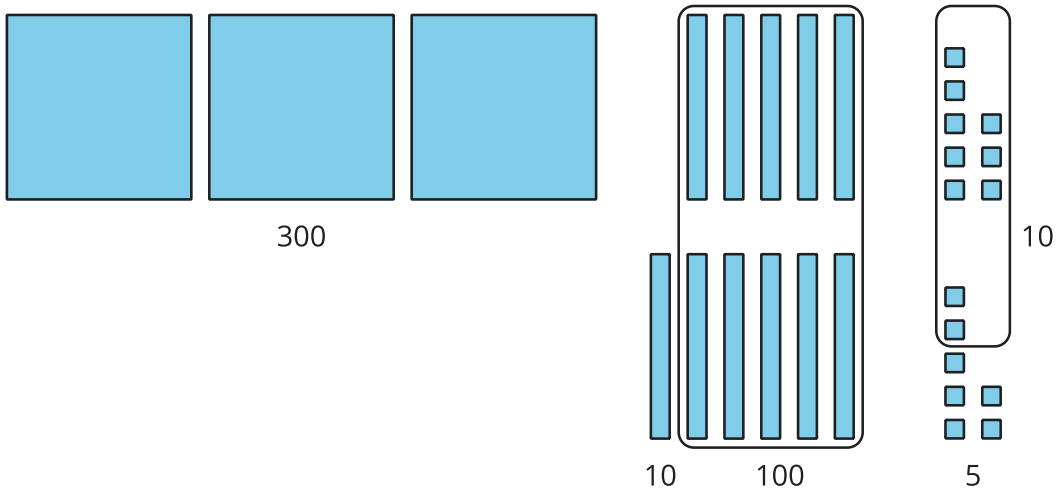
Section Summary

Section Summary

In this section of the unit, we learned many different ways to add three-digit numbers using what we know about place value. We used base-ten blocks, diagrams, and equations to show adding hundreds to hundreds, tens to tens, and ones to ones. We learned that when you add by place, you may need to compose a ten, a hundred, or both.

Base-ten Diagram

$358 + 67$



Unit Form and Equations

$358 + 67$

3 hundreds + 11 tens + 15 ones

11 tens = 110

15 ones = 15

$300 + 110 + 15 = 425$

Adding by Place

$267 + 338$

$200 + 300 = 500$

$60 + 30 = 90$

$7 + 8 = 15$

$500 + 90 + 15$

$500 + 90 + 10 + 5$

$500 + 100 + 5 = 605$

Lesson 11: Center Day 2

- Let's add numbers within 1,000.

Warm-up: Number Talk: Make 100

Find the value of each expression mentally.

- $80¢ + 20¢ + 37¢$

- $80¢ + 20¢ + 37¢ + 42¢$

- $75¢ + 37¢ + 25¢$

- $75¢ + 80¢ + 25¢ + 20¢$

11.2: Introduce Five in a Row, Add Within 1,000 with Composing

Choose a center.

Five a Row: Addition and Subtraction

How Close?

Lesson 12: Decompose to Subtract

- Let’s subtract within 1,000.

Warm-up: What Do You Know About 354?

What do you know about 354?

How could we represent the number 354?

12.1: Subtract from 354

Find the value of each expression in any way that makes sense to you. Explain or show your reasoning.

1. $354 - 7$

2. $354 - 36$

3. $354 - 48$

12.2: Decompose with Base-ten Blocks

Work with your partner to find the value of each expression.

- Partner A: Read the expression and represent the larger number using blocks.
- Partner B: Decide if you will decompose a ten and explain. Then subtract.
- Discuss and write the difference.
- Switch roles.

1. $264 - 38$

2. $274 - 41$

3. $336 - 115$

4. $343 - 127$

5. $485 - 266$

6. $451 - 315$

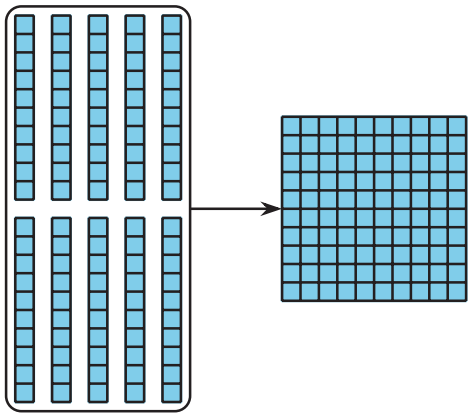
Lesson 13: Decompose Tens or Hundreds

- Let's decompose a ten or hundred to subtract.

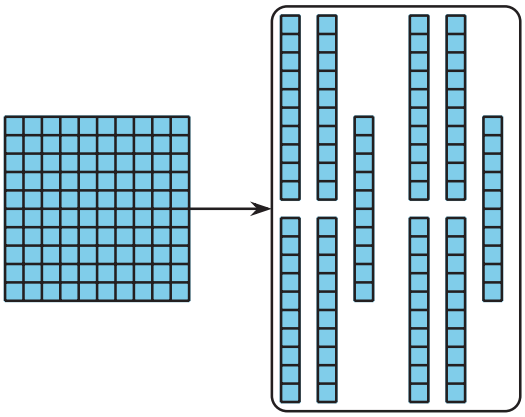
Warm-up: Which One Doesn't Belong: Blocks and Blocks

Which one doesn't belong?

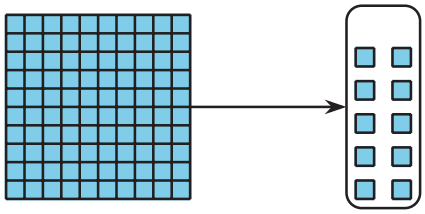
A



B



C



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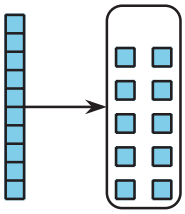
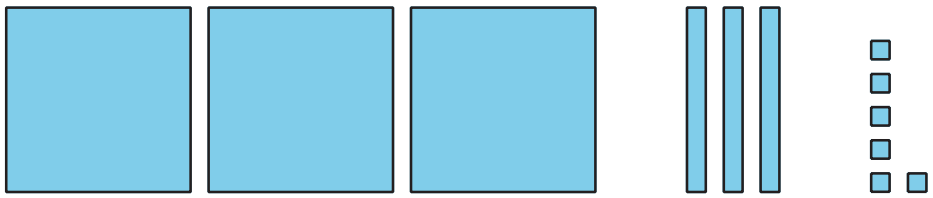


13.1: Subtract with Base-ten Diagrams

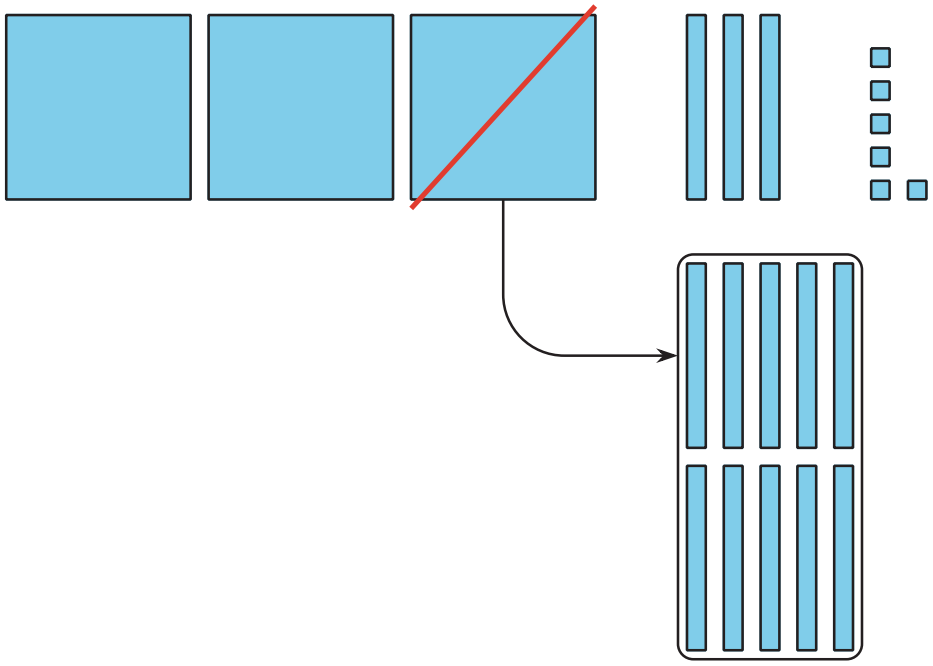
Mai used base-ten blocks to find the value of $336 - 52$. Then, she started making a diagram to show her work.

Explain what Mai did in Step 2. Show what Mai should do next to find the difference.

Step 1



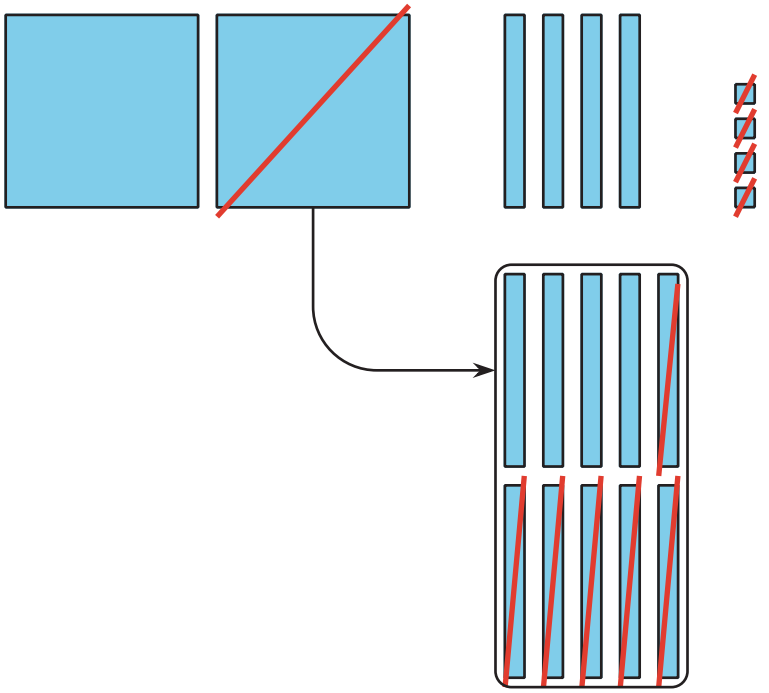
Step 2



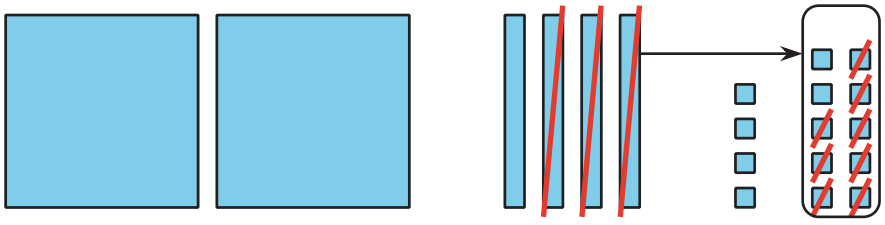
1. Write each expression next to the matching diagram. Then find the value of each difference.

$244 - 28$ $256 - 64$ $244 - 64$

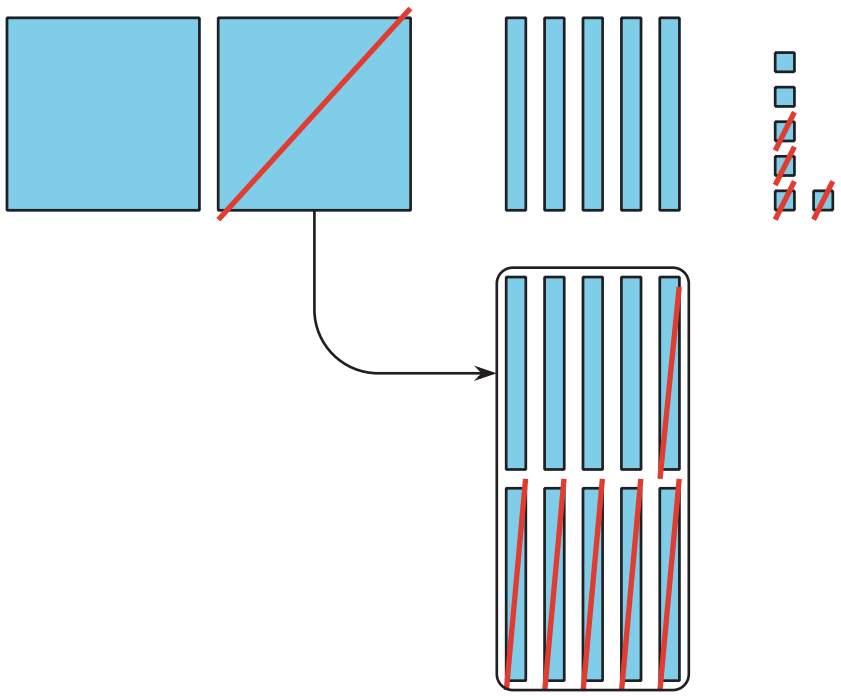
a.



b.



C.



13.2: Decompose a Ten or Hundred

Find the value of each difference. Show your thinking. Try Mai's way for one expression.

1. $245 - 28$

2. $352 - 71$

3. $364 - 182$

4. $293 - 147$

5. Share how you found the value of one of the expressions to your partner. Use the sentence frames to help explain:
    - “First, I . . .”
    - “Next, I . . .”
    - “Then, I . . .”
    - “Last , I . . .”

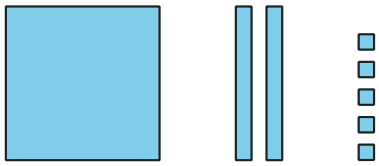
Lesson 14: Think Before You Subtract

- Let's think about decomposing before we subtract.

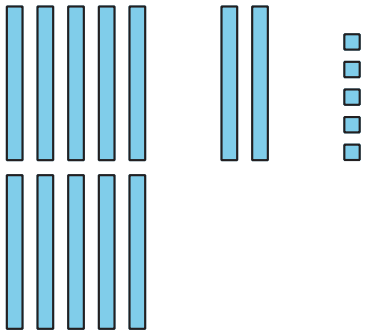
Warm-up: Which One Doesn't Belong: Blocks and Blocks and Blocks and Blocks

Which one doesn't belong?

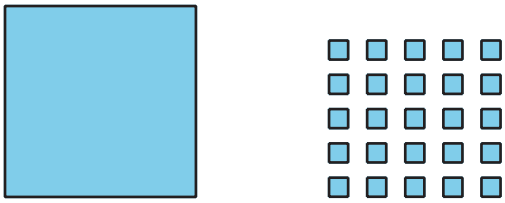
A



B



C



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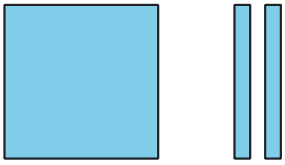
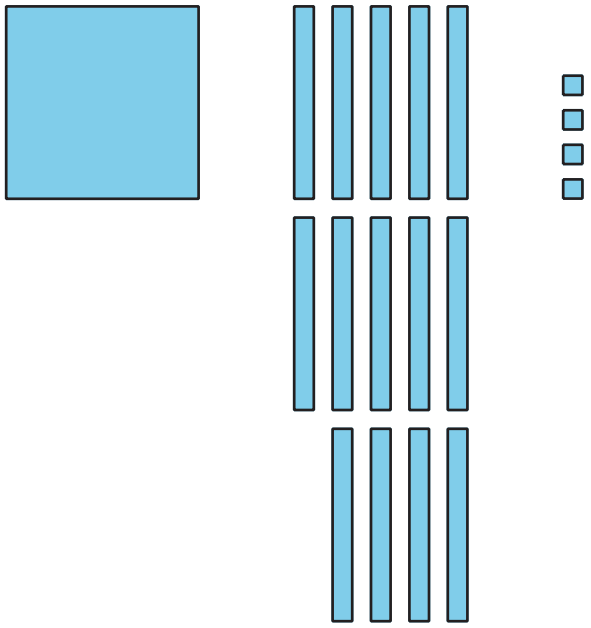


14.1: Agree to Disagree

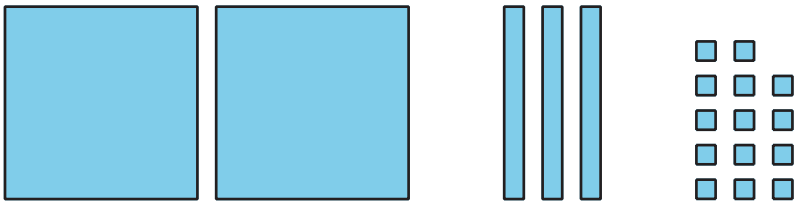
Tyler and Clare are subtracting by place to find the value of $244 - 67$. Tyler says he will decompose before he starts. Clare says she agrees.

The diagrams show each student's first step.

Tyler:



Clare:



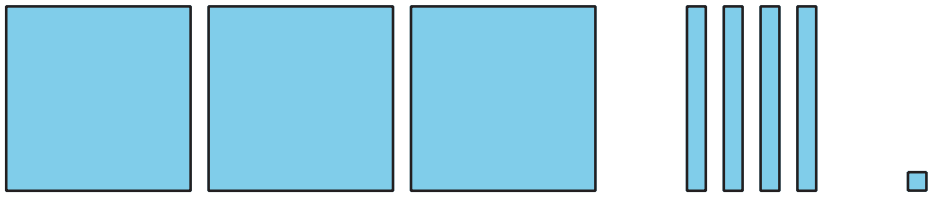
1. What is the same about Tyler and Clare's diagrams? What is different?

2. Work together to complete Tyler's way and Clare's way to find the value of $244 - 67$.

3. What do Tyler and Clare's diagrams look like after the last step? What is the same about these diagrams? What is different?

14.2: Sort and Subtract

Here is a base-ten diagram for 341.



Andre wants to use diagrams and subtract by place to find the value of $341 - 68$. He says he will decompose a ten and a hundred to subtract. Why do you think he said that?

1. Andre only wants to use a diagram to subtract by place if he will decompose a unit. Help Andre sort the expressions into groups. If you are not sure, use base-ten blocks or a diagram to help.

$599 - 66$	$449 - 88$	$346 - 78$
$633 - 55$	$237 - 29$	$321 - 34$
$457 - 45$	$735 - 72$	$645 - 87$
$905 - 42$	$693 - 63$	$866 - 58$
$514 - 26$	$387 - 44$	$277 - 65$

decompose 2 units	decompose 1 unit	do not decompose

2. Find the value of 1 expression from each group. Show your thinking.

Lesson 15: Decompose a Ten and a Hundred to Subtract

- Let’s subtract within 1,000.

15.1: Elena's Thinking

Elena's thinking:

Step 1:

	7 hundreds	2 tens	6 ones
–	5 hundreds	5 tens	8 ones

Step 2:

		1	16
	7 hundreds	~~2~~ tens	~~6~~ ones
–	5 hundreds	5 tens	8 ones

Step 3:

		11	
	6	~~1~~	16
	~~7~~ hundreds	~~2~~ tens	~~6~~ ones
–	5 hundreds	5 tens	8 ones

1. Use base-ten blocks or a base-ten diagram to show Elena's steps.

2. Finish Elena's work to find the value of $726 - 558$.

3. What is another way you could use numbers or equations to show subtracting by place to find the value of $726 - 558$?

15.2: Walk About and Subtract

- Find someone with a different number than you.
- Find the difference between your numbers.

  Show your thinking.
- Trade cards and find a new partner.

1. Partner 1:

2. Partner 2:

3. Partner 3:

Lesson 16: Subtract Within 1,000

- Let's subtract in a way that makes sense.

Warm-up: True or False: Equations Based on Place Value

Decide if each statement is true or false. Be prepared to explain your reasoning.

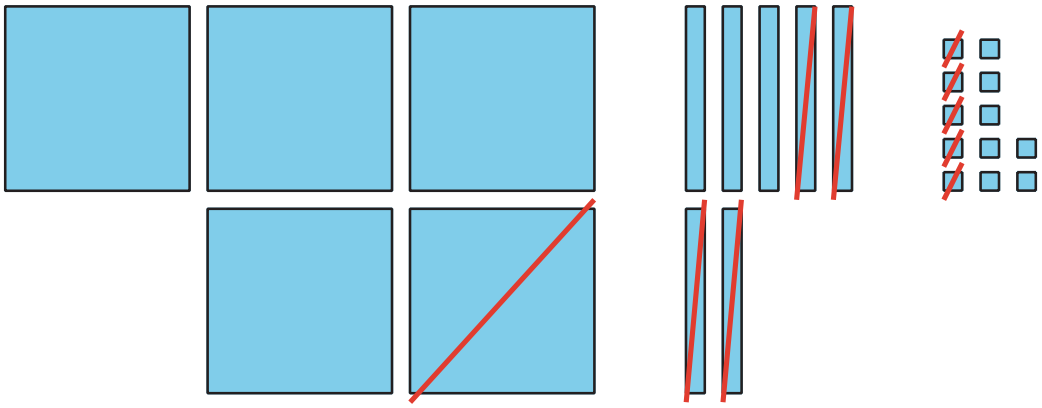
- 2 hundreds + 3 tens + 4 ones = 2 hundreds + 3 tens + 14 ones

- 2 hundreds + 3 tens + 4 ones = 1 hundred + 13 tens + 4 ones

- 1 hundred + 13 tens + 4 ones = 1 hundred + 12 tens + 14 ones

16.1: Jada's Thinking

Lin's diagram:



Jada's equations:

$500 - 100 =$

$80 - 40 =$ (70)

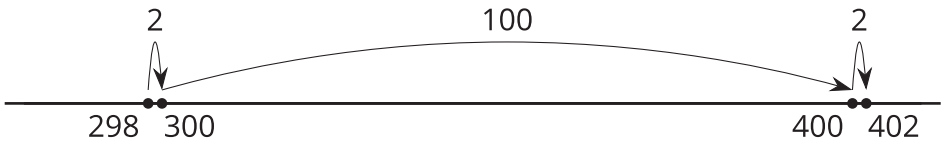
$2 - 5 =$ (12)

1. a. Discuss how Jada's equations match Lin's diagram.

   b. Finish Jada's work to find the value of $582 - 145$.

2. Jada is thinking about how to find the value of $402 - 298$.

   a. Jada says she knows a way to count on to find the difference. She showed her thinking using a number line.



   Explain Jada's thinking.

   b. Jada says you can't decompose to find the value of $402 - 298$ because there aren't any tens. Do you agree with Jada? Use base-ten blocks, diagrams, or other representations to show your thinking.

16.2: Find It Your Way

Find the value of each expression in a way that makes sense to you. Show your thinking. Organize it so it can be followed by others.

1. $535 - 214$

2. $700 - 589$

3. $683 - 398$

4. $918 - 608$

5. $735 - 457$

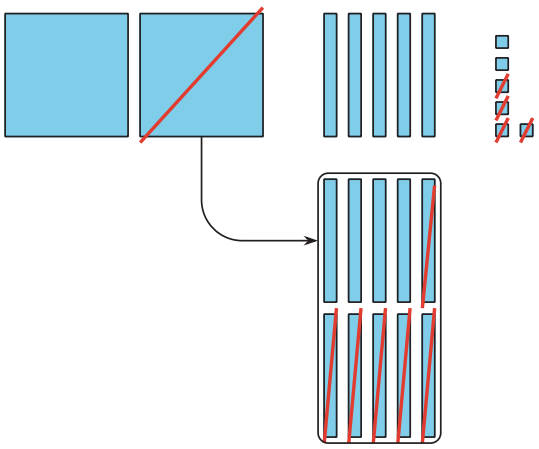
6. $602 - 487$

Section Summary

Section Summary

In this section of the unit, we learned many different ways to subtract three-digit numbers using what we know about place value. We used base-ten blocks, diagrams, and equations to show subtracting hundreds from hundreds, tens from tens, and ones from ones. We learned that when you subtract by place, you may decompose a hundred, a ten, or both. We learned that it is helpful to look closely at the numbers in an expression to plan how to decompose or to choose a method that helps us use friendly numbers or the relationship between addition and subtraction.

Base-ten Diagram for $256 - 64$



Unit Form for $726 - 558$

	6	11	16
	~~7~~ hundreds	~~2~~ tens	~~6~~ ones
−	5 hundreds	5 tens	8 ones
	1 hundreds	6 tens	8 ones

168

Lesson 17: Center Day 3

- Let's add and subtract 3-digit numbers.

Warm-up: Number Talk: Simplify It

Find the value of each expression mentally.

- $34 - 9$

- $434 - 99$

- $367 - 98$

- $635 - 298$

17.2: More Target Numbers and Choice Time

Choose a center.

Target Numbers

Five in a Row: Addition and Subtraction

How Close?

☐☐ + ☐☐ = _____

Lesson 18: Paint Splattered Bar Graph

- Let's solve problems involving a bar graph and addition and subtraction.

Warm-up: Number Talk: Subtract within 1,000

Find the value of each expression mentally.

- $530 - 420$

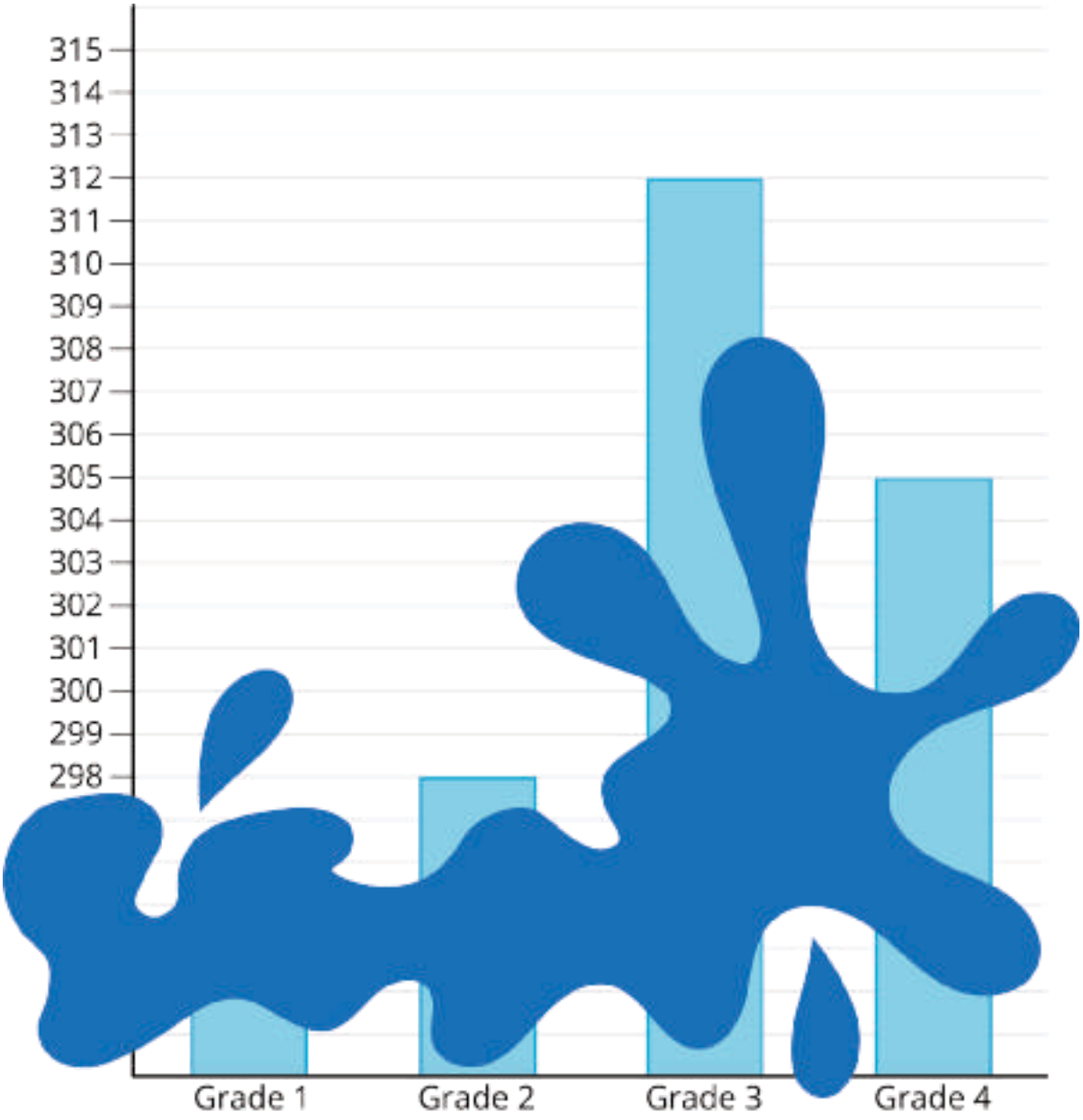
- $530 - 426$

- $535 - 420$

- $535 - 426$

18.1: Student Population

Oh no! Paint fell on the poster of the bar graph Clare and Priya created.



Answer the questions that you can with the graph. If a question cannot be answered, explain how you know.

1. What is the total number of students in grades 3 and 4?

2. How many more students are in grade 2 than in grade 1?

3. How many more students are in grade 3 than grade 2?

4. Write at least 2 mathematical questions that can be answered using the bar graph.

18.2: Asked and Answered

For each round:

1. Trade one question you came up with in the last activity with a partner.
2. Answer the question. Show or explain your reasoning.
3. If you have time, trade another question with a different partner.

Round 1:

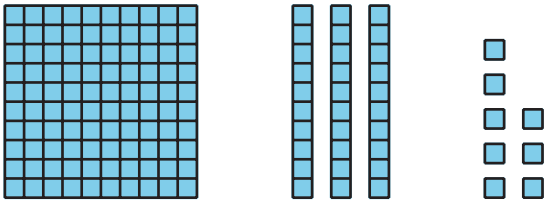
Round 2:

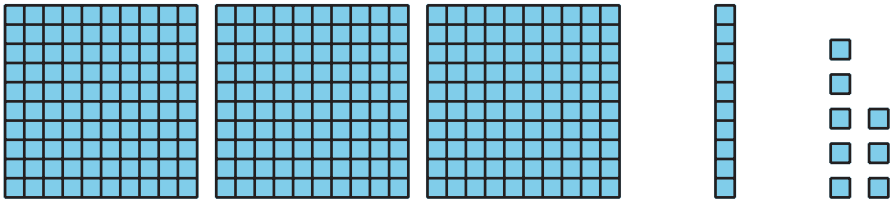
Round 3:

Section A: Practice Problems

1. **Pre-unit**

Select **all** representations of the number 318.

A. 

B. 

C. $300 + 10 + 8$

D. $100 + 30 + 8$

E. Three hundred eighteen

F. Three hundred eighty-one

2. **Pre-unit**

Write a number for each representation.

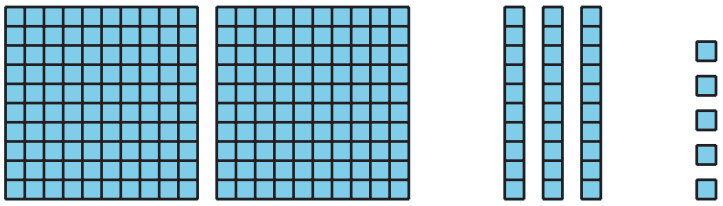
a. Five hundred twenty-seven

_____

b. $300 + 60 + 8$

_____

c.



_____

d. $5 + 40 + 700$

_____

3. **Pre-unit**

Find the value of each sum or difference. Show your thinking.

a. $52 - 43$

b. $65 - 19$

c. $36 + 47$

4. **Pre-unit**

Find the value of each difference.

a. $77 - 10$

b. $77 - 20$

c. $90 - 70$

5. Find the value of each difference. Show your thinking.

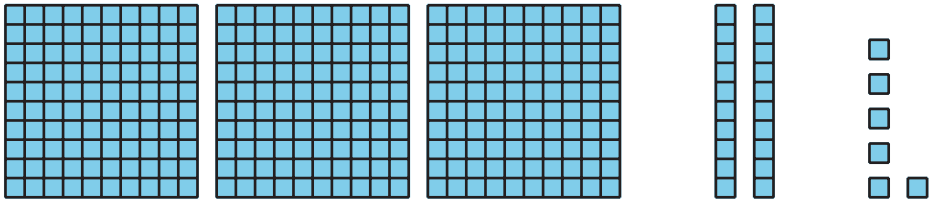
a. $53 - 50$

b. $285 - 281$

c. $90 - 88$

(From Unit 7, Lesson 1.)

6. a. Here are Kiran's blocks.



He gives 2 tens to Priya.

What is the value of Kiran's blocks now? Show your thinking.

b. Then Priya gives Kiran 4 hundreds.
What is the value of Kiran's blocks now? Show your thinking.

(From Unit 7, Lesson 2.)

7. Find the value of each difference. Show your thinking. Use a number line or base-ten blocks if it helps.

   a. $648 - 25$

   b. $535 - 24$

(From Unit 7, Lesson 3.)

8. a. Find the value of $600 - 289$. Show your thinking.

b. Find the value of $245 + 612$. Show your thinking.

(From Unit 7, Lesson 4.)

9. Find the value of each expression. Explain your reasoning.

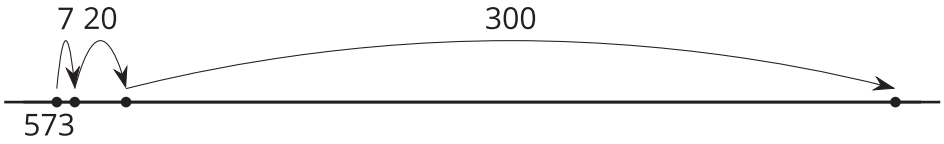
a. $365 + 214$

b. $365 - 214$

(From Unit 7, Lesson 5.)

10. **Exploration**

Here is Han's work finding the value of a difference.



a. What difference did Han find? Show your reasoning.

b. Write an addition and a subtraction equation that match Han's work.

11. **Exploration**

    Tyler says he can find the value of $438 - 275$ using what he knows about differences of two-digit numbers.

    “First I find $43 - 27$ and then I find $8 - 5$ and that gives me the answer.”

    Use Tyler's reasoning to find the value of $438 - 275$.

Section B: Practice Problems

1. Find the value of each sum. Show your thinking.

   a. $238 + 52$

   b. $252 + 38$

   c. $119 + 61$

(From Unit 7, Lesson 6.)

2. Find the value of each sum. Explain your reasoning.

a. $395 + 77$

b. $417 + 532$

(From Unit 7, Lesson 7.)

3. Find the value of each sum. Show your thinking.

a. $238 + 54$

b. $345 + 77$

(From Unit 7, Lesson 8.)

4. Here is how Jada found the value of $741 + 179$.

   $741 + 9 = 750$

   $750 + 100 = 850$

   a. Explain Jada's error.

   b. Correct Jada's work and find the value of $741 + 179$.

(From Unit 7, Lesson 9.)

5. a. Find the value of $382 + 479$.

b. Find the missing digit that makes the equation true. Explain how you know.

$534 + 4\_\_6 = 1{,}000$

(From Unit 7, Lesson 10.)

6. **Exploration**

Here is how Han likes to add.

$$\begin{array}{r} \cancel{4}\ \cancel{4}\ 8 \\ +\ \cancel{3}\ \cancel{9}\ 6 \\ \hline +\ 7\ 13\ 14 \\ \hline 8\ 4\ 4 \end{array}$$

a. Explain why Han's method works.

b. What do you think of Han's method?

c. Use Han's method to find the value of $388 + 259$.

7. **Exploration**

Here is an equation with several digits missing.

$$\_\_\_\ \_\_\_5 + 63\_\_\_ = 823$$

a. What digits can you put in the blanks to make the equation true?

b. Can you complete the numbers in more than one way to make the equation true?

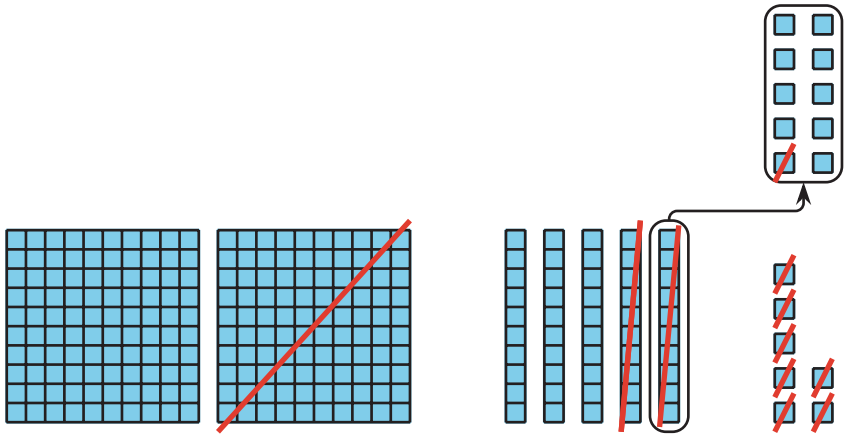
Section C: Practice Problems

1. a. Find the value of each difference.

$325 - 19$

$437 - 115$

b. Jada drew this picture to find the value of a difference. What difference did Jada calculate? Explain how you know.



(From Unit 7, Lesson 12.)

2. Find the value of each difference. Show your thinking.

a. $936 - 428$

b. $352 - 181$

(From Unit 7, Lesson 13.)

3. Jada is finding the value of $571 - 385$. She says that she can take the ones from the ones, tens from the tens, and hundreds from the hundreds, with no decomposing. Do you agree with Jada? Explain your reasoning.

(From Unit 7, Lesson 14.)

4. Find the value of each difference. Show your thinking.

   a. $216 - 88$

   b. $803 - 564$

(From Unit 7, Lesson 15.)

5. Find the value of each difference in a way that makes sense to you. Show your thinking.

   a. $747 - 295$

   b. $811 - 255$

   c. $600 - 378$

(From Unit 7, Lesson 16.)

6. **Exploration**

Here is how Kiran found the value of $543 - 276$

$500 - 200 = 300$

$300 - 30 = 270$

$270 - 3 = 267$

a. Explain why Kiran's method works.

b. Use Kiran's method to find $325 - 276$.

7. **Exploration**

a. Choose a three-digit number so that subtracting by place value is a good strategy for finding the value of $637 - \square\square\square$. Explain your reasoning and find the value of the difference.

b. Choose a three-digit number so that adding on to the smaller number is a good strategy for finding the value of $637 - \square\square\square$. Explain your reasoning and find the value of the difference.

c. Choose a three-digit number so that decomposing two different units is a good strategy for finding the value of $637 - \square\square\square$. Explain your reasoning and find the value of the difference.

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