Use Mental Math to Subtract 10 or 100



Be Curious

What do you notice? What do you wonder?



Math is... Mindset

What do you do to control your actions in class?

Robert is working to complete the table.

What patterns do you notice that can help you subtract 10 or 100?

538 - I0 = 528	538 - 100 = 438
528 - I0 = ?	438 - 100 = ?
518 - 10 = ?	338 - 100 = 238
508 - 10 = 498	238 - 100 = ?
498 - I0 = ?	138 - 100 = ?

Subtracting IO makes the tens digit go down by I. Subtracting IOO makes the hundreds digit go down by I.

If there are O tens, the tens digit changes to 9 and the hundreds digit goes down by 1.

538 - 10 = 528	538 - 100 = 438
528 - 10 = 518	$\frac{438 - 100}{338}$
518 - 10 = 508	338 - 100 = 238
508 - 10 = 498	238 - 100 = 138
498 - 10 = 488	138 - 100 = 38

Math is... Patterns

How are the patterns similar? How are they different?

You can use patterns to subtract 10 or 100 from 3-digit numbers.

Work Together

What is the difference?

$$925 - 100 =$$

$$551 - 10 =$$

$$407 - 100 = ____$$

$$303 - 10 =$$

$$185 - 100 = ____$$



Name

Which equations are true? Choose all the correct answers

A.
$$600 - 10 = 50$$

B.
$$600 - 10 = 590$$

C.
$$500 - 100 = 600$$
 D. $600 - 100 = 500$

D.
$$600 - 100 = 500$$

What is the difference? Use the number line to show your work.





What is the difference?

- 8. Amari does 85 push-ups. Evan does 10 fewer push-ups than Amari. How many push-ups does Evan do?
- 9. STEM Connection Kayla is working with a team to plant 772 trees at a park. They already planted 100 trees. How many trees do Kayla and the team have left to plant?



10. Extend Your Thinking Stephanie has 127 dollar bills. She puts 100 dollar bills in the bank. Then she gives her sister 10 dollar bills. How many dollar bills does Stephanie have now?

Reflect

How can you use patterns to mentally subtract IO or IOO from a 3-digit number?

Math is... Mindset

What helped you control your actions in class?

128 Lesson I - Use Mental Math to Subtract 10 or 100

Lesson 10-2

Represent Subtraction with 3-Digit Numbers

Be Curious

What do you notice? What do you wonder?





Math is... Mindset

How well do you think you will do with today's tasks?

Carmen has a box of 345 building bricks. She uses 114 bricks to build a house.

How many building bricks are left?

Show 345. Then subtract II4.

345 - 114 = ?



345 - 114 = 231

There are 231 bricks left.

You can use base-ten blocks to represent and solve 3-digit subtraction equations. Math is... Modeling

How is 3-digit subtraction similar to 2-digit subtraction?

Work Together

Myles has 275 stamps in his stamp collection. He gives 132 stamps to his sister. How many stamps are left in Myles's collection? Use base-ten shorthand to show your work.

Name

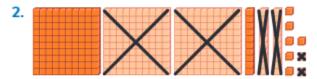
Which equation is represented by the base-ten blocks? Choose the correct answer.

A.
$$221 + 113 = 334$$

B.
$$224 - 113 = 111$$

$$C. 224 + II3 = 337$$

D.
$$221 - 113 = 108$$



A.
$$338 - 202 = 136$$

B.
$$335 - 222 = 113$$

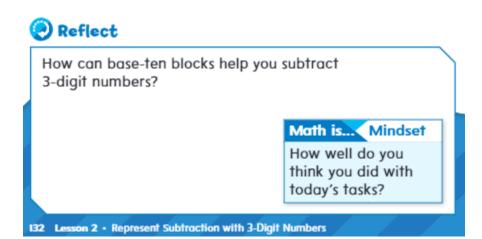
C.
$$338 - 222 = 116$$

D.
$$328 - 202 = 126$$

What is the difference? Use base-ten shorthand to show your work.

Represent the problem using base-ten shorthand.

- 5. Mateo has 725 football cards. He gives away 205 cards. How many football cards does Mateo still have?
- 6. Molly scores 365 points. She loses 124 points. How many points does Molly have left?
- 7. Error Analysis Hank writes 416 105 = 301. How do you respond to him?
- 8. Extend Your Thinking How can you use base-ten blocks to solve 256 134?



Represent the problem using base-ten shorthand.

- Mateo has 725 football cards. He gives away 205 cards. How many football cards does Mateo still have?
- Molly scores 365 points. She loses 124 points. How many points does Molly have left?
- 7. Error Analysis Hank writes 416 105 = 301. How do you respond to him?
- 8. Extend Your Thinking How can you use base-ten blocks to solve 256 - 134?

Reflect

How can base-ten blocks help you subtract 3-digit numbers?

Math is... Mindset

How well do you think you did with today's tasks?

132 Lesson 2 • Represent Subtraction with 3-Digit Numbers

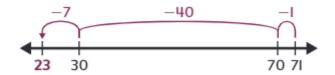
Lesson 10-3



Be Curious

How are they the same? How are they different?





Math is... Mindset

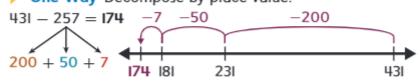
What are some ways to resolve disagreements with your classmates?

Unit 10 - Strategies to Subtract 3-Digit Numbers 133

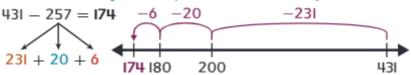
Mary and Juan will decompose 257 43I - 257 = ?to subtract.

How can they decompose 257 to subtract?

One Way Decompose by place value.



Another Way Decompose to make friendly numbers.



One strategy for subtracting 3-digit numbers is to decompose one number and count back on a number line.

Math is... Thinking

Which way of decomposing was more efficient for you?

📿 Work Together

How can you decompose to find the difference? Show the subtraction on the number line.

134 Lesson 3 • Decompose One 3-Digit Number to Count Back



Name _____

How can you decompose the bold number? Circle the correct answer.

1.
$$319 - 127 = ?$$

2.
$$405 - 169 = ?$$

$$100 + 20 + 7$$
 $120 + 70$

3.
$$428 - 290 = ?$$

4.
$$516 - 320 = ?$$

$$200 + 9$$

$$200 + 90$$

How can you decompose to find the difference? Show the subtraction on the number line.





7. STEM Connection Riley's dad can drive his car 383 miles on a full tank of gas. Riley's mom can drive her car 500 miles on a full tank of gas. How many more miles can her mom drive her car than her dad on a full tank of gas?



 Extend Your Thinking Decompose by place value and another way to find the difference of 469 — 275.
 Which way is more efficient for you? Explain.

Reflect

How can you decompose a 3-digit number to help you subtract?

Math is... Mindset

What helped you resolve disagreements with your classmates?

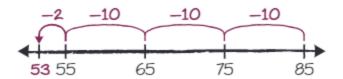
136 Lesson 3 • Decompose One 3-Digit Number to Count Back

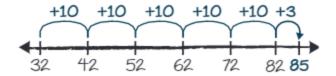
Lesson 10-4

Count On to Subtract 3-Digit Numbers

Be Curious

Tell me everything you can.



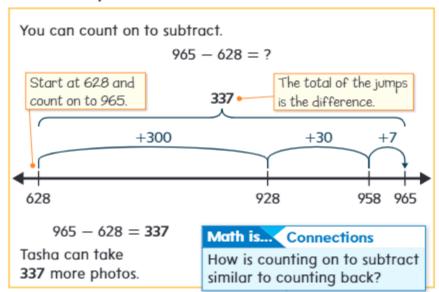


Math is... Mindset

What behaviors show that you respect your classmates?

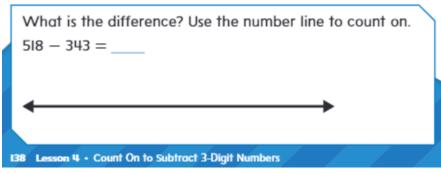
Tasha has space for 965 photos on her camera. She has already taken 628 photos.

How many more photos can Tasha take before her camera runs out of space?



One strategy for solving subtraction equations with 3-digit numbers is to count on using a number line.

📿 Work Together





Name _____

 Which equation is related to 419 — 158? Choose the correct answer.

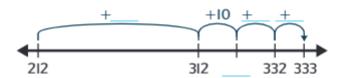
A.
$$158 + 419 = ?$$

B.
$$158 + ? = 419$$

$$C. ? - 158 = 419$$

D.
$$419 + 158 = ?$$

How can you count on to subtract? Complete the number line and find the difference.







5. Marissa has 356 e-mail messages in her inbox. She deletes 108 e-mail messages. How many e-mail messages are left in Marissa's inbox? Write an equation to represent the problem. Use the number line to count on.



- 6. After playing five basketball games, the Rockets scored a total of 368 points and the Blazers scored a total of 475 points. How many more points did the Blazers score than the Rockets? Explain your thinking.
- Extend Your Thinking What two addition equations are related to 283 — 157? Explain how you can use addition to find the difference.

Reflect

How can you count on to subtract 3-digit numbers?

Math is... Mindset
How has your behavior
shown that you respect
your classmates?

140 Lesson 4 • Count On to Subtract 3-Digit Numbers



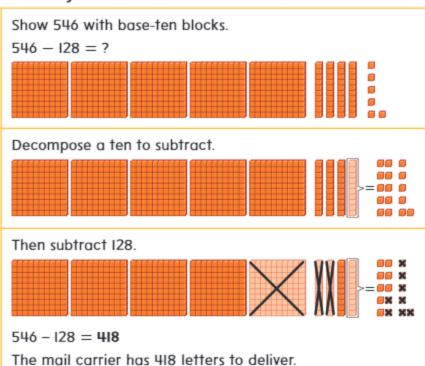
Be Curious

How are they the same? How are they different?

Math is... Mindset
What helps you stay
focused on your work?

The mail carrier had 546 letters. She delivered 128 letters.

How many letters does the mail carrier still need to deliver?



You may need to regroup a ten when subtracting 3-digit numbers.

Math is... Thinking

Why is the order in which you subtract important?

📿 Work Together

Rami has 851 files on his computer. He deletes 545 files. How many files are left on his computer?

142 Lesson 5 • Regroup Tens



Name

Is regrouping needed to subtract? Circle the correct answer.

No

Yes

No

Yes

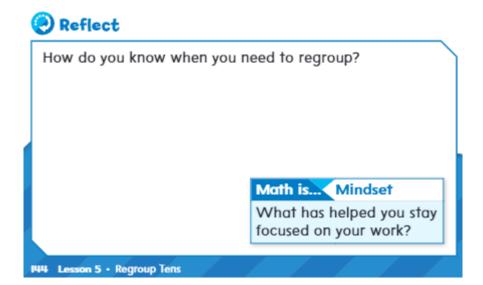
No

Yes

No

What is the difference? Use base-ten shorthand to show your work.

- 7. Davis has a box of 842 photos. He puts 426 photos in albums. How many photos are still in the box?
- **8. Error Analysis** Roger writes this equation 573 245 = 338. How do you respond to Roger?
- Extend Your Thinking Vera has 264 beads. She uses 147 beads. Explain why regrouping is needed to find how many beads Vera has left.

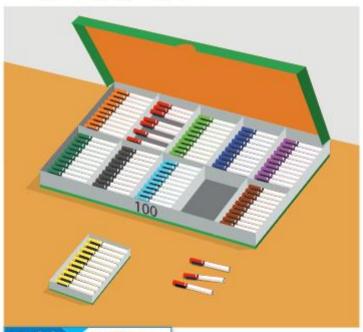


Lesson 10-6

Regroup Tens and Hundreds

Be Curious

What do you notice? What do you wonder?



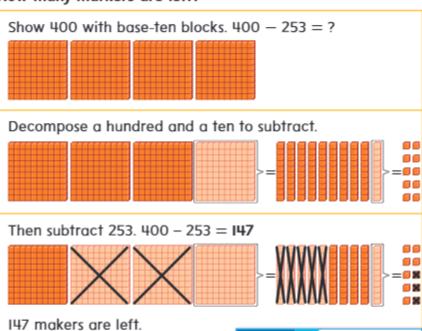
Math is... Mindset
What helps you solve
a problem?

Unit 10 - Strategies to Subtract 3-Digit Numbers 145

Some students take 253 of the markers.



How many markers are left?



You may need to regroup a hundred and a ten when subtracting 3-digit numbers.

Math is... Explaining

Why doesn't the value of the blocks change when they are regrouped?

📿 Work Together

There are 365 days in a year. Beck goes to school for 172 days. How many days does Beck not go to school?

146 Lesson 6 - Regroup Tens and Hundreds



Name

How can you subtract 157 from the base-ten blocks? Circle Yes or No.



I. Do you need to regroup the hundreds?

Yes No

2. Do you need to regroup the tens?

Yes No

What is the difference? Use base-ten shorthand to show your work.

- 5. Trevor bakes 225 muffins for a bake sale. He sells 186 muffins. How many muffins does Trevor still have?
- 6. STEM Connection Kayla is helping her dad landscape their yard. They want 500 flowers. They have 367 flowers. How many more flowers do they need?



7. Extend Your Thinking Ian is driving to visit his family who lives 747 miles away. He stops for gas after 468 miles. How many more miles does Ian have left to drive? Explain why regrouping is needed to find the answer.

Reflect

How can you regroup tens and hundreds to subtract 3-digit numbers?

What has helped you solve a problem?

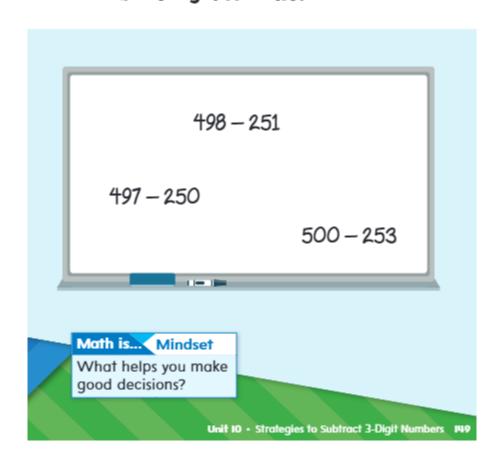
148 Lesson 6 • Regroup Tens and Hundreds

Lesson 10-7

Adjust Numbers to Subtract 3-Digit Numbers

Be Curious

How are they the same? How are they different?



How many pennies are left in Camila's piggy bank?



Camila takes out 197 pennies.

One Way Make 197 a friendly number.

$$251 - 197 = ?$$

$$254 - 200 = 54$$

Camila has 54 pennies left in her piggy bank.

One strategy for subtracting
3-digit numbers is to adjust
numbers to make them friendlier to subtract.

Another Way Make 25I a friendly number.

$$250 - 196 = 54$$

Math is... Thinking

Why must you use the same operation to adjust both numbers?

C Work Together

What is the difference? Adjust the numbers to solve.

$$349 - 173 = ____$$

150 Lesson 7 • Adjust Numbers to Subtract 3-Digit Numbers

Name

How can you adjust the numbers to subtract?
 Choose all the correct answers.

$$347 - 152 = ?$$

How can you adjust the numbers to find the difference? Fill in the numbers.

3.
$$324 - 113 = ?$$



5.
$$587 - 129 = 3$$

- 6. Emilio goes to his grandmother's house that is 683 meters away. He sprints 328 meters and jogs the rest. How many meters does Emilio jog? Write an equation with friendly numbers to solve.
- 7. Error Analysis Deanna is finding the difference of 264 — IO6 by adjusting the numbers to 260 — IIO. How do you respond to Deanna?
- 8. Extend Your Thinking Mr. Park writes 298 143 = ?. Some students adjust the numbers to 300 145 and some adjust the numbers to 295 140. Which way of adjusting do you think is more efficient? Explain.

Reflect

Why is the difference of an adjusted equation the same as the difference of the original equation?

Math is... Mindset
What helped you

make good decisions?

152 Lesson 7 - Adjust Numbers to Subtract 3-Digit Numbers

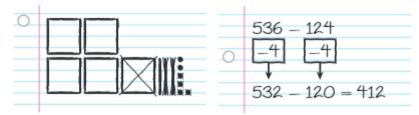
Lesson 10-8

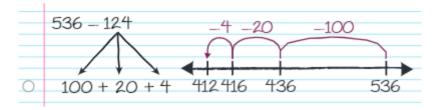
Explain Subtraction Strategies



Be Curious

What do you notice? What do you wonder?





Math is... Mindset

What are some ways you can connect with your classmates?

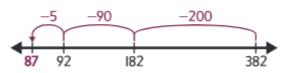
How many more bottles of water were sold than cartons of milk?

Drink	Number Sold
water	382
milk	295

One Way Decompose one number and count back.

$$382 - 295 = 87$$

$$200 + 90 + 5$$



Another Way Adjust numbers.

$$387 - 300 = 87$$

A Third Way Count on.



The difference will stay the same no matter what strategy is used.

Math is... Thinking

Which strategy would you choose? Why?

Work Together

What is the difference? Use a subtraction strategy. Then explain why you chose that strategy.

$$815 - 264 =$$



Name _____

Fill in the correct answer to complete the sentence.

- To count on to find the difference of 493 217, start at _____.
- To count back to find the difference of 872 549, start at _____.

Choose all the correct answers.

3. How can you adjust the numbers to find the difference?
253 - I5I = ?

4. How can you decompose 325 to find the difference? 523 - 325 = ?

A.
$$32 + 5$$

B.
$$300 + 2 + 5$$

$$\mathbf{C}$$
. 300 + 20 + 5

D.
$$300 + 20 + 3 + 2$$

Which equation is related to 928 — 499?

A.
$$499 + ? = 928$$

B.
$$? - 499 = 928$$

C.
$$928 + 499 = ?$$

Use a subtraction strategy to solve. Then explain the subtraction strategy you used.

- 7. Hallie has 500 blocks. 268 of the blocks are red. How many blocks are not red?
- 8. Extend Your Thinking Juan wants to sell 364 tickets to a school play. He already sold 198 tickets. How many tickets does Juan have left to sell? Use two different subtraction strategies to solve and explain which strategy is more efficient for you.

Reflect

Why is it helpful to know how to use different subtraction strategies?

Math is... Mindset

What helped you connect with your classmates?

156 Lesson 8 • Explain Subtraction Strategies



What's the question?

There is a stack of maps at the zoo. Matt hands out some of the maps and Albert hands out some of the maps.

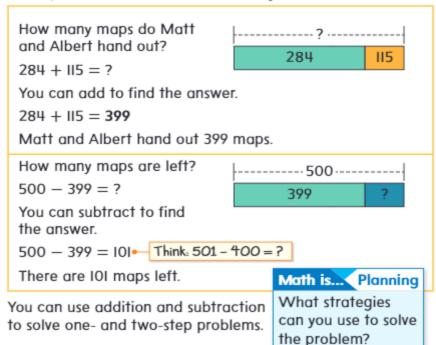
Math is... Mindset
What makes you feel
excited in math?

Unit 10 • Strategies to Subtract 3-Digit Numbers 157

There is a stack of 500 maps at the zoo. Matt hands out 284 maps and Albert hands out 115 maps.

How many maps are left?

Some problems have more than one question to answer.



🖳 Work Together

Zoe has 350 stamps. She uses 220 of the stamps. Then she buys 125 more stamps. How many stamps does Zoe have now?

158 Lesson 9 • Solve Problems Involving Addition and Subtraction



Name

I. Elaine has 294 buttons in a box. She gets 175 more buttons. How many buttons does Elaine have now?

Which equation can you use to represent the word problem? Choose the correct answer.

A.
$$294 - 175 = ?$$

C.
$$294 + 175 = ?$$

Write an equation to represent the problem. Use any strategy to solve.

- 2. Jim has 461 bags of soil. He uses 286 bags. He buys 318 bags. How many bags of soil does Jim have now?
- 3. Stasia has 463 books. Troy has 159 fewer books. How many books does Troy have?
- 4. A scientist has 562 beakers and buys 185 new beakers. How many beakers does the scientist have altogether?

- There are 247 blue pens in the drawer. There are 101 fewer red pens than blue pens. How many pens are in the drawer? Explain your thinking.
- Mia scores 164 more points than Noah in the video game. Wyatt scores 123 fewer points than Mia. How many points



does Wyatt score? Explain your thinking.

 Extend Your Thinking Write a problem that has more than one question to answer using 3-digit numbers that involves addition and subtraction. Solve the problem using any strategy.

Reflect

What strategies can you use to solve problems with addition and subtraction?

Math is... Mindset

What has made you feel excited in math?

160 Lesson 9 • Solve Problems Involving Addition and Subtraction

Unit 10



Addition and Subtraction Problems

Name

I. Mr. B's and Mrs. Yu's classes had a contest. Mr. B's class read 318 books. Mrs. Yu's class read 109 more books than that. How many books did Mrs. Yu's class read?

Solve the problem.

Circle the correct equation.

$$a. 318 + 109 = ?$$

b.
$$318 - 109 = ?$$

c.
$$109 - 318 = ?$$

Explain your choice.

2. A theater sold 327 tickets on Sunday. This was 119 fewer tickets than they sold on Saturday. How many tickets did they sell on Saturday?

Solve the problem.

Circle the correct equation.

a.
$$327 - 119 = ?$$

b.
$$119 - 327 = ?$$

c.
$$327 + 119 = ?$$

Explain your choice.

 Sofia traveled 547 miles on Day I. She traveled some more miles on Day 2. She traveled 687 miles in all. How many miles did she travel on Day 2?

Solve the problem.

Circle the correct equation.

a.
$$547 + 687 = ?$$

b.
$$547 - 687 = ?$$

c.
$$687 - 547 = ?$$

Explain your choice.

Reflect On Your Learning





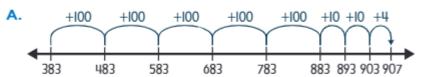
Unit Review	Name	
Vocabulary Review Use the vocabulary to complete each sentence.		
I. Numbers that are educated	asy to add or subtract are (Lesson 10-7)	
2. In the number 892, place. (Lesson 10-1)	8 is in the	
same amount to bo	numbers by adding the th numbers or subtracting om both numbers to make the ubtract. (Lesson 10-7)	
4. You different parts by pl	a number by breaking it into ace value. (Lesson 10-3)	
	or a hundred to show a number in ou (Lesson 10-5)	

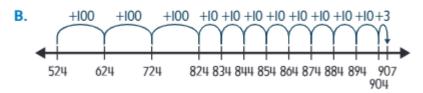
Review

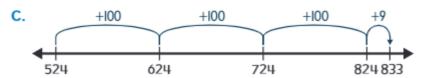
6. What is the difference? (Lesson 10-6)

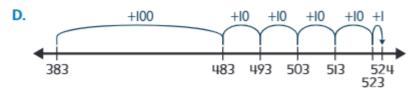
$$563 - 295 =$$

 How can you count on to subtract 524 — 383? Choose the correct answer. (Lesson 10-4)









8. What is the difference? (Lesson 10-1)

$$602 - 10 =$$

 Jose asked 315 people to vote for their favorite color. There are 128 votes for red, 154 votes for green, and the rest of the votes are for blue. How many votes are for blue? (Lesson 10-9)

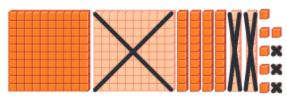
votes

164 Unit 10 · Review



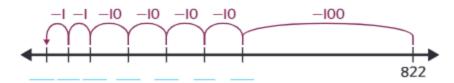


10. What is the difference? (Lesson 10-2)



269 - 123 =

II. James counts back on the number line to find the difference of 822 — I42. Fill in the missing numbers to help James find the difference. What is the difference? (Lesson 10-3)



822 - 142 =

- 12. How can you adjust numbers to make friendly numbers to subtract 68I — 392? Choose the correct answer. (Lesson 10-7)
 - A. Subtract 2 from 392. Subtract 2 from 681.
 - B. Add 2 to 392. Subtract 2 from 681.
 - C. Add 2 to 392. Add 3 to 681.
 - D. Subtract 2 from 392. Add 2 to 681.
- I3. What is the difference? (Lesson 10-5)

572 - 129 =

Performance Task

A landscaping company buys 744 bags of grass seed.

Part A: On Day I, it uses 106 bags. How many bags of grass seed does it have left for the start of the next day?

Part B: On Day 2, it uses 40 more bags than it did the day before. How many bags will it have left for the start of Day 3?

Part C: At the end of Day 3, it has 229 bags of grass seed left. How many bags did it use on Day 3?

Reflect

What strategies can you use to subtract 3-digit numbers?

166 Unit 10 • Performance Task

Unit 10

Fluency Practice

Name _____

Fluency Strategy

You can decompose a number by making a ten to help you add or subtract.

$$37 + 5 = ?$$
 $3 + 2$
 $37 + 3 = 40$
 $40 + 2 = 42$
 $72 - 9 = ?$
 $72 - 7 = 63$
 $72 - 7 = 63$
 $72 - 7 = 63$
 $72 - 7 = 63$
 $72 - 7 = 63$
 $72 - 7 = 63$

 How can you decompose a number to make a ten to subtract 3I — 4? Explain.

Fluency Flash

What is the sum or difference?

Fluency Check

What is the sum or difference?

13.
$$78 - 20 =$$

Fluency Talk

How can you decompose a number to make a ten to add 89 + 7? Explain.

How can you use base-ten blocks to subtract 65 - 30? Explain.

168 Unit 10 - Fluency Practice



