Use Addition and Subtraction Strategies with Two-Digit Numbers
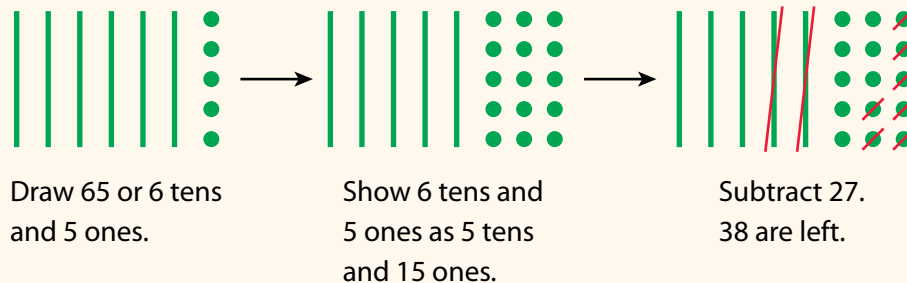
Dear Family,

This week your child is learning more strategies for adding and subtracting two-digit numbers.

Consider the following problem: *Sandy has 65 buttons. 27 of them are red and the rest of them are blue. How many blue buttons does Sandy have?*

- One strategy is to draw tens and ones. Use lines for tens and dots for ones.

Draw 65 or 6 tens and 5 ones.

Show 6 tens and 5 ones as 5 tens and 15 ones.

Subtract 27. 38 are left.

- Another strategy is to "add up." The subtraction equation $65 - 27 = ?$ can be solved by thinking about $27 + ? = 65$.

$27 + \mathbf{3} = 30$
$30 + \mathbf{30} = 60$
$60 + \mathbf{5} = 65$
$\mathbf{3 + 30 + 5 = 38}$

3 **30** **5**

27 30   60 65
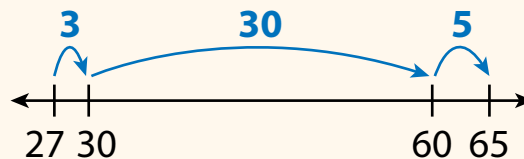
Whichever strategy you choose, you will get the same answer.
Sandy has 38 blue buttons.

You can check the answer to your subtraction problem by using addition.

Invite your child to share what he or she knows about using addition and subtraction strategies with two-digit numbers by doing the following activity together.

ACTIVITY USING ADDITION AND SUBTRACTION STRATEGIES WITH TWO-DIGIT NUMBERS

Do this activity with your child to use addition and subtraction strategies with two-digit numbers.

- Consider this problem: *Juan has a collection of 45 buttons. Some of them are yellow and some of them are green. How many buttons of each color could Juan have?*

- Explain to your child that there are many possible answers for this problem. One possible answer is that Juan could have 25 yellow buttons and 20 green buttons.

- Ask your child to give three other possible pairs of numbers that would solve this problem.

- Repeat at least four more times, each time starting with a different number of buttons. The total number of buttons should be between 30 and 80.

Look for real-life opportunities to solve problems with your child by using addition and subtraction strategies with two-digit numbers.
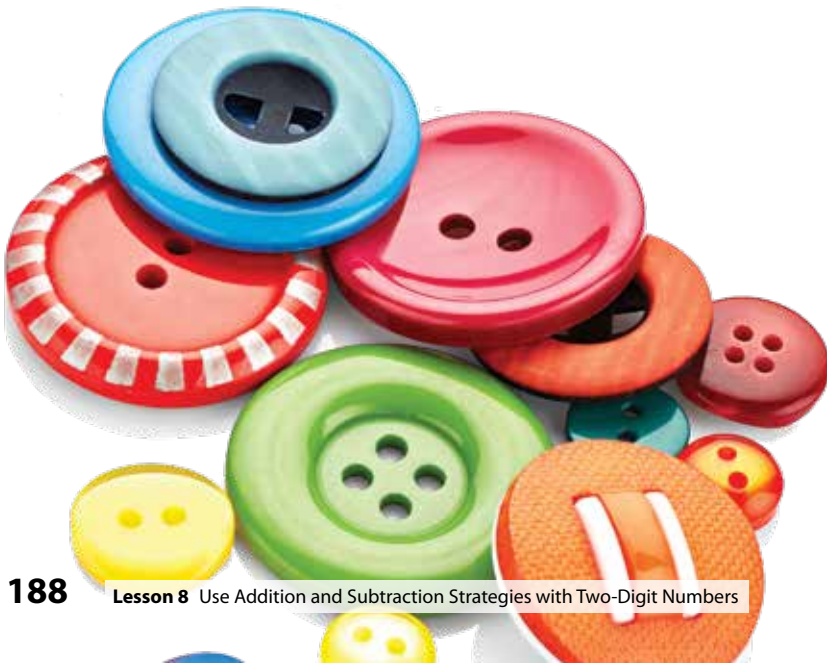
# Solve Word Problems with Two-Digit Numbers

Dear Family,

This week your child is learning to solve one-step problems by adding and subtracting two-digit numbers.

Consider this word problem: *Jacinda has 15 pieces of sea glass in her collection. She goes to the beach and collects some more, and now she has 32 pieces of sea glass. How many pieces of sea glass does Jacinda collect at the beach?*

You can think of problems like this as you **start** with a number, **change** happens, and you end with a **total**. To solve the problem above, you need to find the change that happens.

This can be modeled in different ways to help write and solve equations.

total	
start	**change**

```
      total
      /    \
  start    change
```
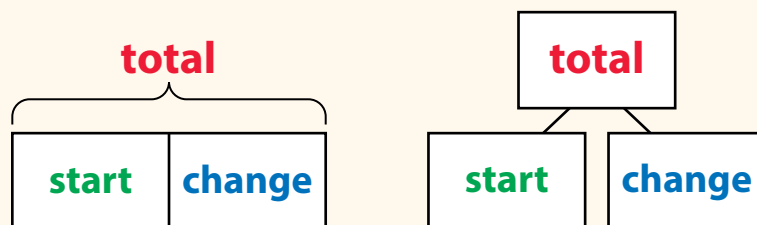
See how you can use a bar model to represent and solve the problem at the top of the page.

32	
15	**?**

$15 + ? = 32$
$32 - 15 = ?$
$32 - 15 = 17$

Jacinda collects 17 pieces of sea glass at the beach.

Invite your child to share what he or she knows about solving one-step problems by doing the following activity together.

ACTIVITY SOLVING WORD PROBLEMS WITH TWO-DIGIT NUMBERS

Do this activity with your child to solve word problems with two-digit numbers.

Materials pen and paper, index cards (optional), scissors (optional)

- Help your child to create word problem cards by cutting out the prompts below or writing the prompts on index cards.

- Ask your child to pick two numbers and one category card.

- Ask your child to come up with an addition or subtraction word problem involving the numbers and category. For example, if your child chose 25, 42, and *pencils,* he or she might say: *Mike has 42 pencils and buys 25 more pencils. How many pencils does he have now?*

- Then ask your child to solve the word problem he or she created.

- Work with your child to create and solve 5 more word problems, picking combinations of numbers and categories each time.
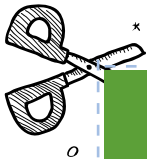
38	17	Books	Rocks
29	40	Apples	Balls
16	25	Seashells	Stamps
42	11	Pencils	People

Mental Addition and Subtraction

Dear Family,

This week your child is learning to count by fives, tens, and hundreds. He or she also is learning to add and subtract 10 or 100 mentally.

Your child will count forward and backward by fives and tens. For example:

Count forward by fives: 105, 110, 115, 120, 125, 130
Count backward by fives: 180, 175, 170, 165, 160, 155
Count forward by tens: 270, 280, 290, 300, 310, 320
Count forward by hundreds: 135, 235, 335, 435, 535, 635

Your child also will add 10 and 100 to a three-digit number and subtract 10 and 100 from a three-digit number. For example:

$534 - 100 = ?$ $819 + 100 = ?$ $682 - 10 = ?$ $265 + 10 = ?$

As your child solves these different types of problems, he or she will identify number patterns. For example, he or she will see that the hundreds digit, or first digit of a three-digit number, will go up or down by 1 when 100 is added or subtracted.

534 **− 100** = **4**34   **8**19 **+ 100** = **9**19

He or she will see that the tens digit, or middle digit of a three-digit number, will go up or down by 1 when 10 is added or subtracted.

6**8**2 **− 10** = 6**7**2   2**6**5 **+ 10** = 2**7**5

Invite your child to share what he or she knows about adding and subtracting 10 and 100 by doing the following activity together.

ACTIVITY ADDING AND SUBTRACTING 10 AND 100

Do this activity with your child to practice mental addition and subtraction.

Materials pen and paper, scissors (optional)

- Help your child to make word problem cards, by cutting out the prompts below or writing the prompts on index cards.

- Ask your child to write a three-digit number between 100 and 900 and choose one category card and one addition or subtraction card.

- Then help your child to write a word problem using the number, the category card, and the addition or subtraction card. For example, if your child chooses *Flowers* and *Subtract 10*, he or she might say: *382 flowers are growing in the garden. I picked 10 of them. How many flowers are in the garden now?*

- Ask your child to solve the word problem.

- With your child, write and solve word problems with the remaining cards. He or she should write a different three-digit number for each word problem.

Animals	Add 10
Fruits	Subtract 10
Toys	Add 100
Flowers	Subtract 100

- Ask your child: *What patterns do you notice when you add and subtract 10? When you add and subtract 100?*

Use Addition and Subtraction Strategies with Three-Digit Numbers

Dear Family,

This week your child is learning strategies for adding and subtracting three-digit numbers.

Previously, your child learned to use place value to add and subtract three-digit numbers. In this lesson, your child will use both addition and subtraction strategies to solve many different types of problems.

Here are some ways that your child might find $600 - 238$.

- Subtract hundreds, tens, and ones.

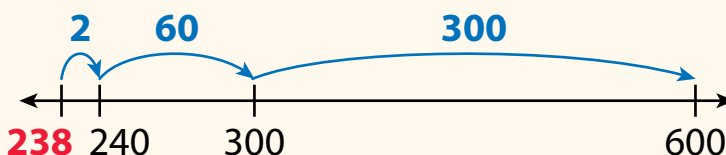|	
238 = 200 + 30 + 8	600
First, subtract **200**.	− **200**
	400
Then subtract **30**.	− **30**
	370
Last, subtract **8**.	− **8**
	362

- Use an open number line.
  You can change the subtraction problem into a missing addend addition problem. To find $600 - 238$, you can find $238 + ? = 600$.

  Start at **238**.
  Add **2** to reach 240.
  Then add **60** to reach 300.
  Then add **300** to reach 600.

  2   **60**   **300**

  238 240   300   600

  You added on **2 + 60 + 300**, or **362**.

Your answer to $600 - 238$ is 362 using either strategy.

Invite your child to share what he or she knows about adding and subtracting three-digit numbers by doing the following activity together.

ACTIVITY USING ADDITION AND SUBTRACTION STRATEGIES WITH THREE-DIGIT NUMBERS

Do this activity with your child to use addition and subtraction strategies with three-digit numbers.

- Ask your child to choose and write a three-digit number from below.

- Add the number on the matching shape and color as your child's number. Have your child check the sum.

- Ask your child to use those same two numbers and subtract the lesser number from the greater number. Have your child explain the strategy he or she used to find the answer.

- Switch roles and repeat so that you and your child take turns doing either the addition or the subtraction of the two numbers with matching colors.

- Ask your child what his or her favorite strategy is for adding three-digit numbers. Ask what his or her favorite strategy is for subtracting three-digit numbers.

329   250   185   125

407   536   137   395

334   653   256   244