

2.NBT.5

This math unit provides lesson plans and math group resources to use while teaching the standard **2.NBT.5**, which states that students will be able to...

"Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction."

2nd Grade

ADD & SUBTRACT 2-DIGIT NUMBERS

Math Strategies

- We can use strategies to help us solve addition and subtraction problems. There are 4 strategies:
 - Base-Ten
 - Break-Apart
 - Let's try to solve using mental math.
 - Let's try to solve using place value.

Let's try...

Let's try... $24 + 35$	Let's try... $85 - 22$
Let's try... $62 + 37$	Let's try... $67 - 23$

2.NBT.5

Created by Jessica Tobin



Using This Unit

Let's look at the structure of this unit.

Pre-Assessment

- A pre-assessment is included that will help give you an idea of where your students are with this specific standard. Give this pre-assessment prior to any lessons on the standard.

Daily Lessons

- Whole Group-** The whole group lesson will typically involve an anchor chart or poster to discuss. This should take about five minutes to complete.
- Partner Practice-** The whole group activity will be followed up with a partner practice activity. It will build on the knowledge the students learned or reviewed in the whole group lesson. This should take between 5-10 minutes.
- MATH Groups-** There are four break-apart groups to do a day. Each rotation can last between 10-15 minutes depending on how long you get for your math block.
 - Math Writing-** 2 writing options are given each day (one full sized page OR a cut and glue strip for a math journal)
 - Apply Skills-** You will find a variety of practice resources here, such as printables, interactive notebooks, or partner activities.
 - Teacher Time-** Small group differentiation can happen here. Most days will include a 'Remediation' activity, an 'On-Level' activity, and an 'Enrichment' activity.
 - Hands-on Practice-** These centers will give your students chances to get practice with manipulatives and other engaging activities.
- Exit Slip-** Every single day will come with an exit slip for students to show what they learned that day. Teacher will cut apart the three strips.

Assessment

- This is to be completed after all lessons and math groups are taught.

Daily Lesson Plans

Each standards-based math unit comes with daily lessons. Some are 3 days, while others may be 5+ days, depending on how complex the standard is. There are **4 main components** of each daily lesson.

2 nd Grade Math: 2.NBT.5 Lesson #1	
I can add and subtract within 100, focusing on place value strategies.	
Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Activities	
Whole Group	Teacher will introduce addition and subtraction strategies poster/anchor chart. However, today's focus is all about concrete strategies when adding and subtracting. Teacher will introduce anchor chart about using base-ten blocks, or teacher can display mini posters and discuss. Then teacher will model how to represent a 2-digit addition and 2-digit subtraction problem with base-ten blocks, drawing cards from the pile. Teacher will describe step-by-step how to regroup (starred problems).
Partner Practice	Students will work with partners and base-ten blocks to draw a card and solve. They will write their answers on a Post-it note, then find a nearby group and check their answers.
Math Groups	M- Students will write about the base-ten block strategy. Teacher will choose the full page writing sheet, OR the cut-apart strips for math journals. A- Teacher will either copy the two printables front/back for students to complete with pencils or slide them into sheet protectors for students to complete with dry erase markers. T- GREEN: Students will work with a Teacher to draw a task card, represent the blocks together, then solve the problem. BLUE: Students will use base-ten blocks to draw a card, solve, and write their answer on a recording sheet. PURPLE: Partners will quiz each other, using blank problems. Student 1 will write a 3-digit +/- problem. Student 2 will represent it with base-ten blocks and solve. H- Students will spin a problem on the spinning sheet, then use base-ten blocks (use the ones from partner practice if you don't have any) to solve their problems.
Exit Slip	Students will complete an exit slip independently. Students will trade papers with a nearby classmate and grade their paper with a marker/pencil while teacher reviews answers as a whole group.

Whole group activity: This activity will typically include an anchor chart mini poster, plus some sort of teacher modeling activity.

Partner practice: This will be a hands-on partner activity following the whole-group.

M.A.T.H. groups: (Explained in depth on next page) There are four groups/centers.

Exit slip: There are 3 exit slips to a page to cut out and administer for student learning.

M.A.T.H. Groups

Each day comes with four group activity suggestions and materials for 'M.A.T.H.' groups. This is your small group time, splitting the class up into four groups to rotate around the room, participating in different activities for 10-20 minutes a piece.

M	Math Writing	2 options... worksheet or cut/glue notebook strips	
A	Apply New Skills	Worksheet or interactive notebook activities to apply the skill learned in whole group	
T	Teacher Time	Differentiated time for 3 levels (remediation, on-level, enrichment)	
H	Hands-On Math	Engaging center to follow up on the whole group/partner practice	

Day 1 Activities

Here's a look at day 1's whole group, partner practice, MATH group activities, and exit slip.

2.NBT.5 Lesson #1

1 can add and subtract within 100, using place value strategies.

Friendly add and subtract within 100 using strategies based on place value, properties of operations, and relationship between addition and subtraction.

Activities

Mario wants to use base-ten blocks to represent his problem. He has 7 tens and 4 ones. He wants to subtract 5 tens and 2 ones. Mario would regroup. Draw the step by step details to show regrouping.

Base-Ten

$32 + 47$

Break

$32 = 30 + 2$

Think of 10

$70 - 50 = 20$

Give & Take

Mario wants to use base-ten blocks to represent his problem. He has 7 tens and 4 ones. He wants to subtract 5 tens and 2 ones. Mario would regroup. Draw the step by step details to show regrouping.

Math Strategies

We can use strategies to help addition and subtraction problems. Here are a few!

Strategy 1: Base-Ten

You can use base-ten blocks to show addition and subtraction problems.

$24 + 35$

$85 - 21$

Base-Ten

$24 + 35$

Break

$24 = 20 + 4$

Now, you can count the tens and ones.

$20 + 30 = 50$

$4 + 5 = 9$

Give & Take

Mario wants to use base-ten blocks to represent his problem. He has 7 tens and 4 ones. He wants to subtract 5 tens and 2 ones. Mario would regroup. Draw the step by step details to show regrouping.

Let's try...

Card 1 $32+47$

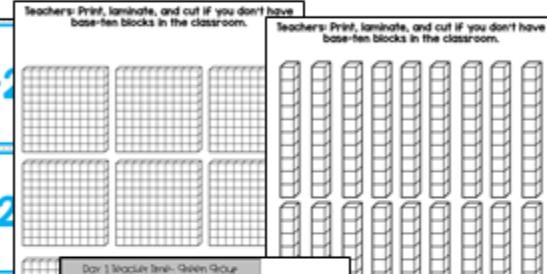
Card 2 $55+2$

Card 3 $62+37$

Card 4 $67-21$

Card 5 $26+42$

Card 6 $71-2$



Base-Ten Block Addition

$25+26=$

$31+46=$

$49-32=$

$49-23=$

$72-13=$

$37-16=$

$66-23=$

$62-49=$

$81-24=$

Base-Ten Block Subtraction

$42-20$

$25+3$

$45-21$

24

$65-30$

$22+10$

$31+$

$53-10$

$32+2$

$25-14$

Day 1 Structure Time- Blue Group

Name: _____

Mario wants to use base-ten blocks to represent his problem. He has 7 tens and 4 ones. He wants to subtract 5 tens and 2 ones. Mario would regroup. Draw the step by step details to show regrouping.

a. Draw how Mario wants to represent his problem.

b. Explain the step by step details to show regrouping.

c. Draw how Mario wants to represent his problem.

d. Explain the step by step details to show regrouping.

e. Draw how Mario wants to represent his problem.

f. Explain the step by step details to show regrouping.

g. Draw how Mario wants to represent his problem.

h. Explain the step by step details to show regrouping.

i. Draw how Mario wants to represent his problem.

j. Explain the step by step details to show regrouping.

Day 1 Structure Time- Purple Group

Name: _____

Mario wants to use base-ten blocks to represent his problem. He has 7 tens and 4 ones. He wants to subtract 5 tens and 2 ones. Mario would regroup. Draw the step by step details to show regrouping.

a. Draw how Mario wants to represent his problem.

b. Explain the step by step details to show regrouping.

c. Draw how Mario wants to represent his problem.

d. Explain the step by step details to show regrouping.

e. Draw how Mario wants to represent his problem.

f. Explain the step by step details to show regrouping.

g. Draw how Mario wants to represent his problem.

h. Explain the step by step details to show regrouping.

i. Draw how Mario wants to represent his problem.

j. Explain the step by step details to show regrouping.

Day 1 Structure Time- Purple Group

Name: _____

Mario wants to use base-ten blocks to solve, then draw them here.

Card 1

Card 2

Card 3

Card 4

Card 5

Card 6

Card 7

Card 8

Card 9

Card 10

Card 11

Card 12

Day 1 Structure Time- Purple Group

Name: _____

Mario wants to use base-ten blocks to solve, then draw them here.

Card 1

Card 2

Card 3

Card 4

Card 5

Card 6

Card 7

Card 8

Card 9

Card 10

Card 11

Card 12

Day 1 Structure Time- Purple Group

Name: _____

Mario wants to use base-ten blocks to solve, then draw them here.

Card 1

Card 2

Card 3

Card 4

Card 5

Card 6

Card 7

Card 8

Card 9

Card 10

Card 11

Card 12

Day 1 Hand-on Roll

Spin-a-Problem

Spin 2 numbers. Then, spin to find out if it will be addition or subtraction.

Don't forget - The bigger number goes first when you subtract!

Show your math.

2.NBT5 Exit Slip #1

Draw the base-ten blocks to represent each problem.

$26-33=$

$77-25=$

2.NBT5 Exit Slip #2

Draw the base-ten blocks to represent each problem.

$26-33=$

$77-25=$

2.NBT5 Exit Slip #3

Draw the base-ten blocks to represent each problem.

$26-33=$

$77-25=$

Day 2 Activities

Here's a look at day 2's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math 2.NBT.5 Lesson 2

I can add and subtract within 100 using strategies based on place value, properties of operations, and relationship between addition and subtraction.

Activities

Strategy 2: Break-Apart

We can use expanded form or place value to show addition or subtraction problems.

Expanded form can make addition and subtraction easier!

Let's try... 35 + 42

50 + 3 30 + 4
50 + 30 = 80
3 + 4 = 7
80 + 7 = 87 ← Add the two sums

Let's try... 58 - 34

50 - 30 = 20
50 - 30 = 20
8 - 4 = 4
20 - 4 = 16 ← Add the tens, then the ones.

Let's try... 27 + 22

20 + 7 20 + 2
20 + 2 = 22
7 + 2 = 9 ← Add the tens, then the ones.

Let's try... 94 - 53

90 - 50 = 40
90 - 50 = 40
4 - 3 = 1
40 - 1 = 39 ← Break apart the tens and ones.

Let's try... 23 + 72

20 + 3 20 + 7
20 + 7 = 27
3 + 2 = 5 ← Add the tens, then the ones.

Let's try... 51 + 32

50 + 1 50 + 3
50 + 3 = 53
1 + 2 = 3 ← Add the tens, then the ones.

Day 2 Modular Time- Blue Group

84 - 32 **66**
47 + 21 **74 + 2**
83 - 21 **57**
36 + 33 **45 + 2**
66 - 11 **79**
52 + 25 **62 + 2**

Day 2 Modular Time- Green Group

22 + 32 **14 +**
34 + 11 **15 +**
37 + 21 **36 +**

Day 2 Modular Time- Yellow Group

51 +

Day 2 Modular Time- Purple Group

204 **954 - 623** **69**
335 + 625 **987 - 352** **48**
347 + 342 **555** **26**
278 + 313 **728 - 213** **27**
374 **652 - 337** **29**
655 - 384

Day 2 Stand-on-Hall

20 **21**
23 **24**
32 **33**
35 **36**
38 **39**
41 **42**
43

Day 2 Stand-on-Hall

44 **45**
47 **48**
+ -
- +

Day 2 Stand-on-Hall

46
27
92

Day 2 Stand-on-Hall

Number card 1 here. **Addition or subtraction symbol here.** **Number card 2 here.**

Day 2 Stand-on-Hall

2.NBT.5 Exit Slip #2

Break each number down into expanded form to solve.

51 + 42	87 - 23
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2.NBT.5 Exit Slip #2

Break each number down into expanded form to solve.

51 + 42	87 - 23
----------------	----------------

2.NBT.5 Exit Slip #2

Break each number down into expanded form to solve.

51 + 42	87 - 23
----------------	----------------

Day 3 Activities

Here's a look at day 3's whole group, partner practice, MATH group activities, and exit slip.

2.NBT.5 Lesson

I can add and subtract within 100, using place value strategies.

Frequently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Activities:

- Teacher will review strategies and number chart.
- Students will complete a worksheet for independent practice.
- Students will work in pairs or small groups to solve problems.
- Students will share their strategies with the class.

Materials:

- Number chart
- Worksheets
- Calculator
- Whiteboard and markers
- Manipulatives (optional)

Math Strategies

We can use strategies to help us solve addition and subtraction problems. Here are a few!

Base-Ten
 $32 + 47$

 7 tens + 9 ones = 79

Break-Apart
 $32 + 47$
 $30 + 2 + 40 + 7$
 $70 + 9 =$
 Think of expand form
Number Line

We want to make "friendly" numbers that will make our math easier.

$58 + 34$
 $+2 -2$
 $60 + 32 =$

In this example, I can add 2 to 58 to make a "friendly" 60. If I give 2 to one addend, I have taken 2 from the other addend.

$47 + 36$
 $+3 -3$
 $50 + 33 =$

Strategy 3: Give & Take

We can give and take from numbers to make math easier!

Let's try...
 $54 + 37$
 Let's try...
 $42 - 31$
 Let's try...
 $39 + 25$
 Let's try...
 $61 - 23$
 Let's try...
 $48 - 26$
 Let's try...
 $26 + 2$
 Let's try...
 $67 - 29$
 Let's try...
 $37 -$

Give and Take Sum

Day 3 Practice Time- Green Group

$88 + 33 =$	$92 -$
$33 + 42$	$92 -$
$27 + 24$	$31 -$
$51 - 33$	$55 + 33$
$71 - 66$	$31 -$
$84 - 27$	$52 -$
$82 - 63$	$52 -$

Day 3 Practice Time- Purple Group

$24 + 39$	$47 + 48$	$59 - 37$
$84 - 28$	$26 + 38$	$35 + 39$
$54 + 21$	$58 + 24$	$61 - 36$
$84 - 20$	$75 - 48$	$61 - 36$
$37 + 29$	$74 - 26$	$82 - 28$
$91 - 35$	$52 + 45$	$52 + 45$
$55 + 38$	$67 - 36$	$67 - 36$

Day 3 Practice Time- Blue Group

43	44
34	36
25	26
39	21
41	35
25	22

Day 3 Practice Time- Purple Group

ADDITION	FRACTION
Place number card I here.	Place number card I here.

Day 3 Practice Time- Green Group

$52 - 36$
$27 + 34$
$81 - 35$

Day 3 Practice Time- Blue Group

$24 + 39$
$84 - 28$
$54 + 21$
$84 - 20$
$37 + 29$
$91 - 35$
$55 + 38$
$74 - 26$

Day 3 Practice Time- Purple Group

2.NBT.5 Exit Slip #3	
Use the give and take method to make these problems easier to solve.	
$57 + 34$	$81 - 27$

Day 3 Practice Time- Blue Group

2.NBT.5 Exit Slip #3	
Use the give and take method to make these problems easier to solve.	
$57 + 34$	$81 - 27$

Day 3 Practice Time- Purple Group

2.NBT.5 Exit Slip #3	
Use the give and take method to make these problems easier to solve.	
$57 + 34$	$81 - 27$

Day 3 Practice Time- Blue Group

2.NBT.5 Exit Slip #3	
Use the give and take method to make these problems easier to solve.	
$57 + 34$	$81 - 27$

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Day 4 Activities

Here's a look at day 4's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math: 2.NBT.5 Less

Math Strategies

We can use strategies addition and subtract within place value, properties of operations, and relationship between addition and subtraction.

Strategy 4: Number

An OPEN number line is a number line that is blank; we can use it to solve a problem.

Base-Ten Base-Ten
 $32 + 47 = 79$
 7 tens + 9 ones = 79

Give & Take Give & Take
 $32 + 47 = 79$
 -2 We can use a base-ten block model to solve this problem.

Let's try... $27 + 64$

Let's try... $71 - 38$

Let's try... $32 + 32$

Let's try... $69 - 39$

Let's try... $52 + 34$

Let's try... $36 + 39$

Let's try... $45 + 38$

Let's try... $52 + 29$

Let's try... $54 - 28$

Let's try... $43 + 58$

Let's try... $92 - 38$

Open Number Lines: Addition

Open Number Lines: Subtraction

Day 3 Module Time- Green Group

Day 3 Module Time- Green Group

Day 3 Module Time- Green Group

Day 3 Module Time- Blue Group

Day 3 Module Time- Blue Group

Day 3 Module Time- Purple Group

Day 3 Module Time- Purple Group

Day 3 Module Time- Purple Group

Day 4 Math-On Ball

Spin-a-

1. Spin your first addend above.
 2. Spin for addition or subtraction.
 3. Add or subtract the second addend.
 4. Solve.

2.NBT.5 Exit Slip #4

Show the problem on an open number line.

$57 + 34$ $81 - 27$

2.NBT.5 Exit Slip #4

Show the problem on an open number line.

$57 + 34$ $81 - 27$

2.NBT.5 Exit Slip #4

Show the problem on an open number line.

$57 + 34$ $81 - 27$

Day 5 Activities

Here's a look at day 5's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math: 2.NBT.5 Lesson 5

Addition Problems

You can line your addition problem up by place value. Then, you can add the digits.

Without Regrouping:

$$95 - 32$$

Line them up.

$$\begin{array}{r} 95 \\ - 32 \\ \hline \end{array}$$

Subtraction Problems

You can line your subtraction problem up by place value. You can subtract the digits.

Without Regrouping:

$$87 - 35$$

Line them up.

$$\begin{array}{r} 87 \\ - 35 \\ \hline \end{array}$$

Let's Solve

35 + 38	62
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Addition Problems

Solve the math problems.

$$\begin{array}{r} 29 \\ + 43 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ + 57 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 2 \\ \hline \end{array}$$

Subtraction Problems

Solve the math problems.

$$\begin{array}{r} 87 \\ - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ - 55 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ - 70 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ - 35 \\ \hline \end{array}$$

Day 5 Practice Time

2.NBT.5

- I can add and subtract numbers within 100.
- I can use place value strategies to solve addition and subtraction within 100.

There are many different ways to add and subtract.

You can also use place value, such as adding like-places.

32+52
Tens: 30+50=80
Ones: 2+24=26
80+26=106

Day 5 Hands-on Math

Day 5 Practice Time

My Strategies

Show 55 - 23 using expanded form.

Show 67 - 39 using the give and take method.

Day 5 Hands-on Math

Day 5 Practice Time

2.NBT.5

Solve the addition and subtraction problems, then record your answers.

33 + 37	65 + 34	55 +
42 + 39	34 + 54	47 +
55 + 28	62 - 28	73 -
64 + 26	71 - 59	68 -

Day 5 Practice Time

2.NBT.5 Exit Slip #5

Set up each problem using the standard algorithm and solve.

34 + 20	65 - 37	38 + 36	46 - 23
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Day 5 Practice Time

2.NBT.5 Exit Slip #5

Set up each problem using the standard algorithm and solve.

34 + 20	65 - 37	38 + 36	46 - 23
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Day 5 Practice Time

2.NBT.5 Exit Slip #5

Set up each problem using the standard algorithm and solve.

34 + 23	65 - 37	38 + 38	46 - 23
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Day 6 Activities

Here's a look at day 6's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math 2.NBT.5 Lesson #6

I can add and subtract place value within 100 on place value strategies of open number lines, base-ten blocks, and algorithms.

Addition Problem

You can line your addition problem up by place value. Then, you can add them.

Subtraction Problem

You can line your subtraction problem up by place value. You can subtract them.

Solve the problem using base ten blocks

55 + 30

Solve the problem using an open number line

47 - 28

Solve the problem using an algorithm

62 - 46

Name:

2.NBT.5

There are 34 white ice skates and 57 pink ice skates. How many ice skates are there in all?

- Solve the problem in two ways.
- Explain the place value strategies you used for each.
- Explain the place value strategies you used for each.

a.

b.

Day 6 Apply Skills

Addition

Subtraction

Day 6 Structure Time- Green Group

Let's try to solve using break-apart... 32+33

Let's try to solve using base-ten blocks... 24+35

Let's try to solve using open number line... 42+22

Let's try to solve using the algorithm... 56+21

Day 6 Structure Time- Blue Group

Let's try to solve using break-apart... 45-32

Let's give 5

Let's try to solve using open number line... 54-21

Let's try to solve using the algorithm... 54-21

Day 6 Structure Time- Purple Group

Let's try to solve using break-apart... 82-68

Let's give 5

Let's try to solve using open number line... 42-28

Let's try to solve using the algorithm... 36-21

Spin a Strategy

give and take

break-apart

open number line

algorithm

base-ten blocks

Day 6 Structure Time- Blue Group

53+28

85-57

37+29

72-35

45+47

64-38

65+27

91-38

44+19

82-47

38+39

73-50

Day 6 Structure Time- Purple Group

125+36

95+27

95+65

115+26

109-37

112+29

123+18

115-52

Day 6 Structure Time- Hall

Give and take: 85-29

Break-apart: 74-28

Open Number Line: 84-39

Base-Ten Block: 95-37

Algorithm: 84-62

Your Choice: 85-46

Give and take: 46+28

Break-apart: 91-35

Open Number Line: 42-26

Base-Ten Block: 47-39

Algorithm: 81-28

Your Choice: 54+28

Day 6 Show Your Work

Show your work. Show your work.

Day 6 Spin a Strategy

give and take

break-apart

open number line

algorithm

open number line

base-ten blocks

Day 6 Exit Slip #6

Solve the problems using any math strategy you choose.

46+27	40+31	30+46
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Day 6 Exit Slip #6

Solve the problems using any math strategy you choose.

46+27	40+31	30+46
-------	-------	-------

Day 6 Exit Slip #6

Solve the problems using any math strategy you choose.

46+27	40+31	30+46
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Assessments

Each unit comes with a pre-assessment to give to students before you teach the standard. This will come before any introduction to the standard. There is also an assessment to give after your unit is complete.

Name: _____ Date: _____

2.NBT.5 Pre-Assessment

What math strategy is shown to the right?

- a) give and take
- b) break-apart
- c) standard algorithm
- d) open number line
- e) base-ten blocks

$$\begin{array}{r} 52 + 34 \\ -2 \quad \quad 2 \\ \hline 50 + 36 = 86 \end{array}$$

What math strategy is shown to the right?

- a) give and take
- b) break-apart
- c) standard algorithm
- d) open number line
- e) base-ten blocks

$$\begin{array}{r} 61 + 27 \\ 60 + 1 \quad 20 + 7 \\ \hline 60 + 20 = 80 \\ 1 + 7 = 8 \\ \hline 80 + 8 = 88 \end{array}$$

Solve the problem below with the different strategies.

Solve using base-ten blocks. $25+34$	Solve using base-ten blocks. $56-24$
Solve using the standard algorithm. $36+33$	Solve using the standard algorithm. $87-24$

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Name: _____ Date: _____

2.NBT.5 Assessment

Solve the problems using the given strategy.

Solve using the give and take method. $54+27$	Solve using the give and take method. $81-22$
Solve using the break-apart method. $37+35$	Solve using the break-apart method. $72-35$
Solve using an open number line. $44+29$	Solve using an open number line. $52-26$
Solve using base-ten blocks. $62+29$	Solve using base-ten blocks. $75-36$
Solve using the standard algorithm. $27+38$	Solve using the standard algorithm. $85-17$

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