

Common Core Learning Standards

GRADE 1 Mathematics

NUMBER & OPERATIONS IN BASE TEN

Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
Extend the counting sequence. 1.NBT.1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	Counting Sequence	Count to 120, starting from any number	<ul style="list-style-type: none"> ▪ Count on ▪ Number ▪ Before ▪ After ▪ Between ▪ Least ▪ Greatest ▪ Order
		Read numerals from 0 to 120	
Write numerals 0 to 120, starting from any number			
Label a given set of objects with a written numeral			
Sequence a set of consecutive numbers in order from least to greatest, within 120.			
Explain how each successive number is one more than the previous			

SAMPLE TASKS

I Bob was counting to 20. He forgot what was after 13. What comes next?

14

II Patty counted the students in her classroom. There were 16 students. One more student walked in. How many students are now in the room?

17

III Fill in the missing numbers.

41	42	43	44	45	46	47	48	49	50
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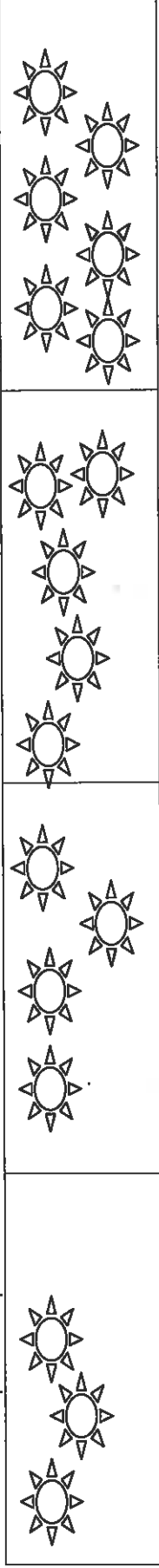
IV The bag has 111 marbles. Draw more marbles so there are 117 marbles in all. Write the numbers as you count.



V Count forward. Write the numbers

33, 34, 35, 36, 37, 38, 39, 40

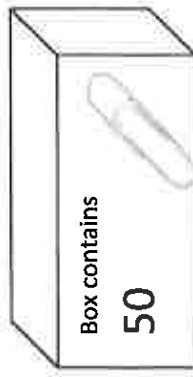
VI Count and explain the pattern.



There is one more sun in each box; Add 1 more to each box;

The number goes up 1 each time

VII How many in all?



52

59

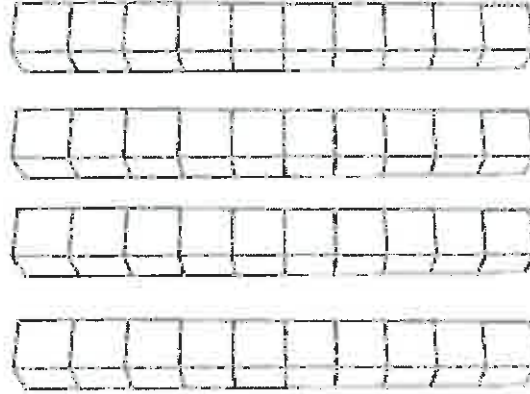
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Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
Extend the counting sequence.	Place Value	Count objects and sort them into groups of ten	<ul style="list-style-type: none"> ▪ (Digit ▪ Ten(s) ▪ One(s) ▪ Place value ▪ Value ▪ Group ▪ Bundle
Understand that the two digits of a two-digit number represent amounts of tens and ones.		Draw groups of ten(s) to represent multiples of ten	
Understand the following as special cases:		Explain and show 1 'ten' as ten ones	
1.NBT.2.a. 10 can be thought of as a bundle of ten ones — called a "ten."		Name the value of any digit in a two digit number (i.e. In the number <u>7</u> 6, the 7 = 70) State the place value of any digit in a two digit number (i.e. In the number <u>7</u> 6, the 7 is in the tens place.)	

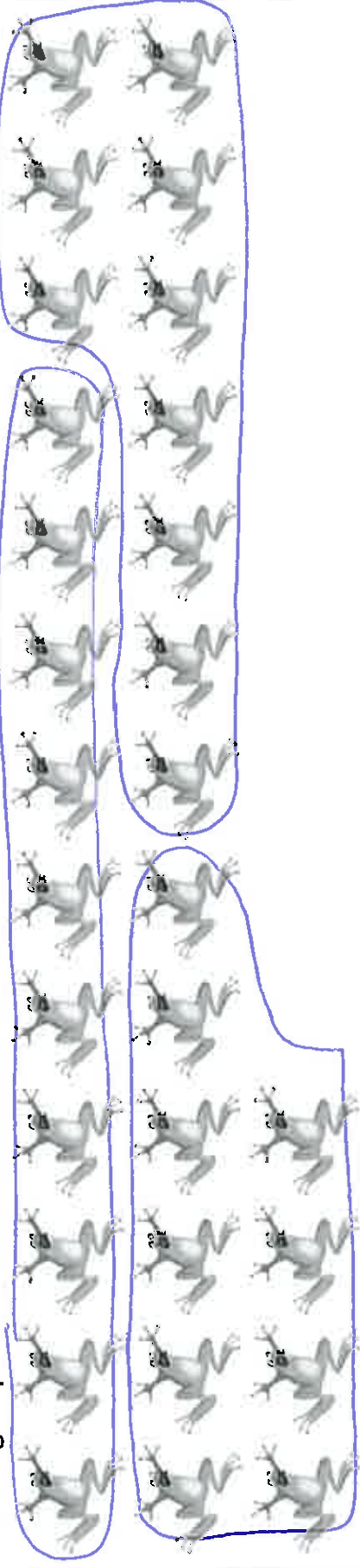
SAMPLE TASKS

How many groups of tens are there? 4

How many ones are there? 0



II Circle groups of ten.



How many tens and ones?

Tens	Ones
3	0

Write the number. 30

Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
<p>Extend the counting sequence.</p> <p>Understand that the two digits of a two-digit number represent amounts of tens and ones.</p> <p>Understand the following as special cases: 1.NBT.2b.</p> <p>The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.</p>	Place Value	<p>Write the expanded form of a number 11-19</p> <p>Explain the value of a teen number in terms of tens and ones (i.e. 12 is one group of ten and two ones)</p> <p>Manipulate objects or draw groups of tens and ones to represent a two digit number</p> <p>Manipulate objects or draw picture to show that 1 ten is equal to 10 ones.</p> <p>Name the value of any digit in a two digit number (i.e. In the number 18, the 1 = 10)</p> <p>State the place value of any digit in a two digit number (i.e. In the number 18, the 8 is in the tens place.)</p>	<ul style="list-style-type: none"> ▪ Digit ▪ Ten(s) ▪ One(s) ▪ Place value ▪ Value ▪ Group ▪ Bundle

SAMPLE TASKS

I Explain the value of 1 in the number 18?

The 1 is in the tens place. One ten = 10, so 1 in 18 is equal to 10.

II Explain the value of 8 in the number 18?

*The 8 is in the ones place.
8 ones = 8*

III Draw base ten model to show 13.

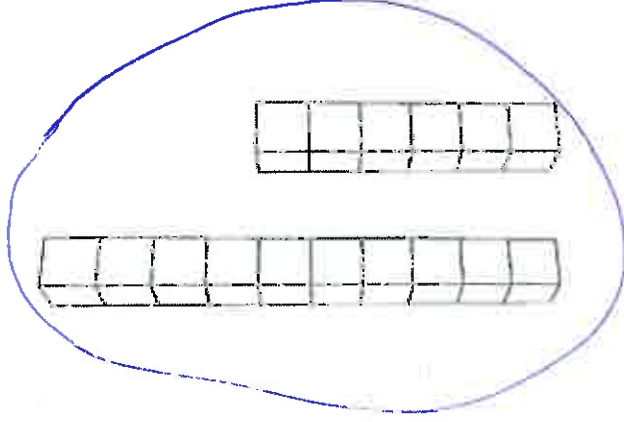


IV Explain what is the same about the numbers 16, 17, 18, and 19.

They all have a 1 in the tens place.

They are all teen numbers so they all have a 1 in the tens place.

IV Circle the base ten model that shows 16? How do you know?

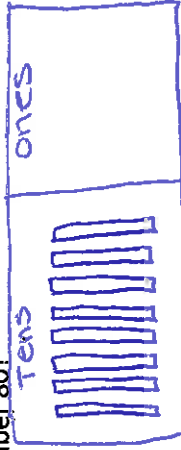


There is 1 ten stick = 10
and 6 ones so the number
is 16.

Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
Extend the counting sequence.	Place Value	Skip count by tens Explain the value numbers that are multiples of 10 in terms of tens and ones (i.e. 40 is 4 groups of ten and 0 ones) Draw groups of tens to represent numbers that are multiples of 10	<ul style="list-style-type: none"> ▪ Digit ▪ Ten(s) ▪ One(s) ▪ Place value ▪ Value
Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 1.NBT.2c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	Manipulate objects or draw picture to show that 1 ten is equal to 10 ones.		<ul style="list-style-type: none"> ▪ Group ▪ Bundle ▪ Skip count

SAMPLE TASKS

I On your place value mat make the number 80?



II 3 groups of 10 equal 30 because $10 + 10 + 10 = 30$
 you can skip count by 10, 3 times

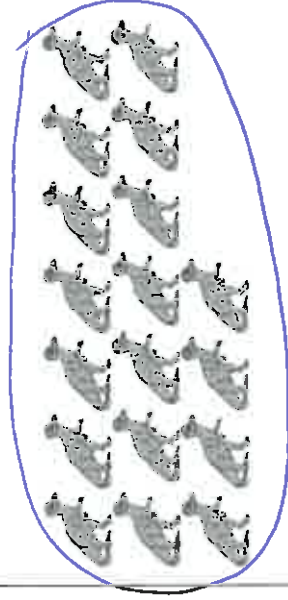
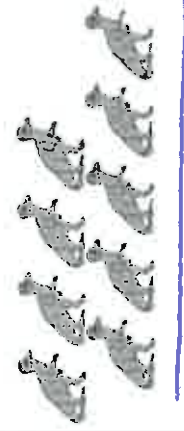
III Explain why 10 ones equals 10.

The number 10 is 1 group of ten and 0 ones.

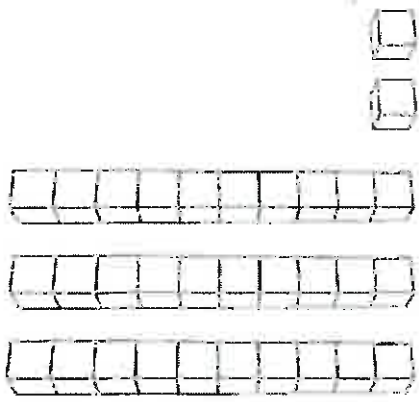
Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
<p>Extend the counting sequence.</p> <p>1.NBT.3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p>	<p>Number Comparison</p>	<p>Compare 2 two-digit numbers using the terms and symbols $>$ (greater than), $<$ (less than) and $=$ (equal to)</p> <p>Explain why a 2-digit number is greater than or less than another 2-digit number, based on place value (i.e. 43 $>$ 28 because the 4 in 43 is worth 40 and the 2 in 28 is worth 20, so 43 is larger than 28 since 40 is larger than 20.)</p> <p>Draw a visual representation (or manipulate place value blocks) to show why a two-digit number is larger or smaller than another two-digit number</p> <p>Name the value of any digit in a two digit number (i.e. In the number <u>7</u>6, the 7 = 70)</p> <p>State the place value of any digit in a two digit number (i.e. In the number <u>7</u>6, the 7 is in the tens place.)</p> <p>Explain how one number is greater than or less than another</p> <p>Match the symbol ($>$) with the phrase 'greater than' and the symbol ($<$) with the phrase 'less than'</p>	<ul style="list-style-type: none"> ▪ Digit ▪ Ten(s) ▪ One(s) ▪ Place value ▪ Value ▪ Compare ▪ Greater than $>$ ▪ Less than $<$ ▪ More ▪ Less ▪ Equal

SAMPLE TASKS

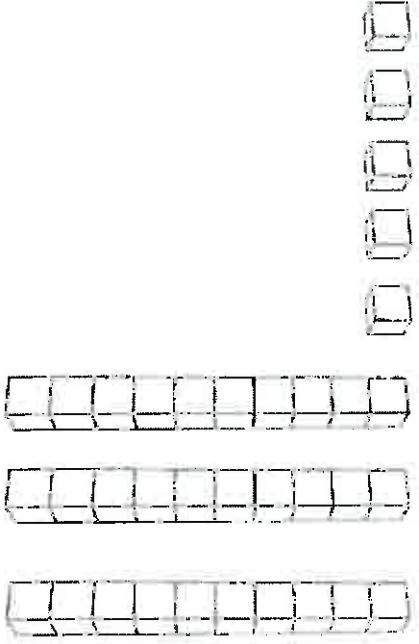
1. Circle the largest group. Underline the smallest group.



ii Compare the numbers. Write $>$, $=$, or $<$.



$<$



iii. 88

$>$

56

Write a sentence using the words greater than, less than, or equal to.

88 is greater than 56.

IV. Explain why 45 is greater than 36.

The 45 has a bigger number in the tens place,
45 has 4 groups of ten and 36 only has 3 groups of
ten.

Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
<p>Use place value understanding and properties of operations to add and subtract.</p> <p>1.NBT.4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p>	<p>Two-Digit Addition & Regrouping Introduction</p>	<p>Add a two-digit number to a one-digit number, using a variety of strategies and explain the strategy used</p> <p>Add a two-digit number to a two-digit number with and without regrouping and explain the strategy used</p> <p>Draw pictures and use place value blocks to show why when adding, it might be necessary to compose a ten (regroup)</p> <p>Name the value of any digit in a two digit number (i.e. In the number <u>7</u>6, the 7 = 70) when adding two numbers</p> <p>State the place value of any digit in a two digit number (i.e. In the number <u>7</u>6, the 7 is in the tens place.) when adding two numbers</p> <p>Explain the meaning of regrouping when adding (also to include written explanation)</p> <p>Explain/ write the relationship between addition and subtraction</p>	<ul style="list-style-type: none"> ▪ Place value ▪ Two-digit number ▪ Ten(s) ▪ Ones(s) ▪ Group ▪ Regroup ▪ Add ▪ Strategy

SAMPLE TASKS

Explain when adding, which place value do you add first?

You add the ones column/place first.

II Circle the problems you need to regroup when adding?

Explain why.

$$\begin{array}{r} 36 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 58 \\ + 13 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ + 34 \\ \hline \end{array}$$

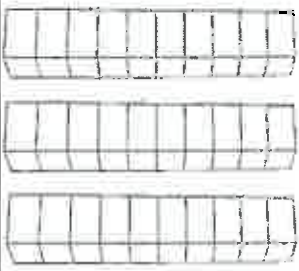
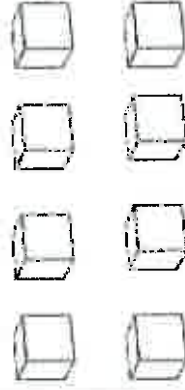
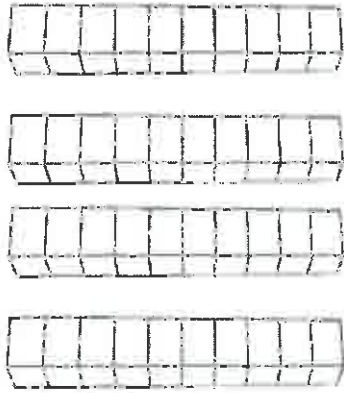
In both of these addition problems, when I add the numbers in the ones, I get a sum bigger than 9, which means I need to make a ten and regroup.

III Add and explain how you got your answer.

Write number model

1
47

Shows students may not understand that the numbers are added together to find the total.



38

Draw base ten model



85

OK

Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
<p>Use place value understanding and properties of operations to add and subtract.</p> <p>1.NBT.5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>	<p>Mental Math: Addition & Subtraction of Ten</p>	<p>Add 10 more to a given number with quick recall (with and/or without the use of visual aids or counting strategies) and explain reasoning used</p> <p>Subtract 10 from a given number with quick recall (without the use of visual aids or counting strategies) and explain reasoning used</p> <p>Skip count by tens from any given number (to include counting forwards and backwards)</p> <p>Write a sequence of numbers with the rule “add ten” or “subtract ten” starting with any number</p> <p>Explain how ten more or ten less is related to place value.</p>	<ul style="list-style-type: none"> ▪ Place value ▪ Ten more ▪ Ten less ▪ Ten(s) ▪ Ones(s) ▪ Skip counting ▪ Add ▪ Subtract

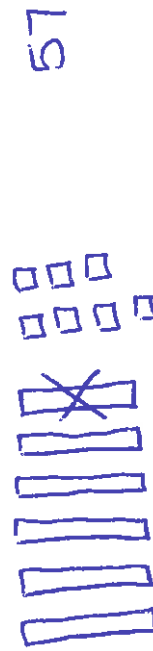
SAMPLE TASKS

I Using base ten blocks show ten more than 35.



$$40 + 5 = 45$$

II Using base ten blocks show ten less than 67.



III What is 10 more than 72?

Tens	Ones
7	2

Tens	Ones
8	2

IV What is 10 less than 28?

Tens	Ones
2	8

Tens	Ones
1	8

V What is 10 more than 38?

48

VI What is 10 less than 16?

6

VII 10 more than 29 is 39.

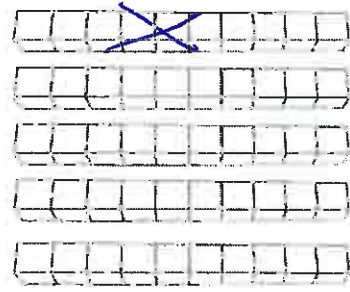
Common Core Learning Standards	Concepts	Embedded Skills	Vocabulary
<p>Use place value understanding and properties of operations to add and subtract.</p> <p>1.NBT.6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>	<p>Mental Math: Subtraction of Ten</p>	<p>Subtract 10 from a given number that is a multiple of 10 and explain the reasoning used</p> <p>Skip count backwards by tens from any given number that is a multiple of 10</p> <p>Explain, show using manipulatives or drawing and write about how ten less is related to place value</p> <p>Explain/ write how addition and subtraction are related</p>	<ul style="list-style-type: none"> ▪ Place value ▪ Ten more ▪ Ten less ▪ Ten(s) ▪ Ones(s) ▪ Skip counting ▪ Multiples / Multiple ▪ Add ▪ Subtract

SAMPLE TASKS

1 How many tens are in the difference?

4 tens

50-10 = 40



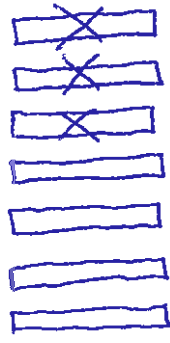
II Write how many tens. Write the difference.

7 tens - 4 tens = 3 tens

70 - 40 = 30

III Draw base ten models to solve.

Maria has 70 baseball cards. She gives 30 to Lisa. How many baseball cards does Maria have left? 40 baseball cards



$$70 - 30 = 40$$

IV. Explain why the difference of 90 and 70 is 20.

You would start out with 9 groups of ten and cross out/take away 7 groups of ten. You would still have 2 groups of ten left ($10 + 10 = 20$).

Both numbers have a 0 in the ones place ($0 - 0 = 0$). In the tens place $9 - 7 = 2$ and 2 groups of ten equals 20.