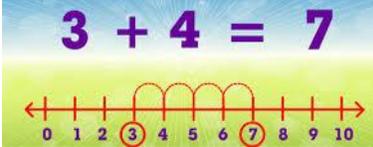
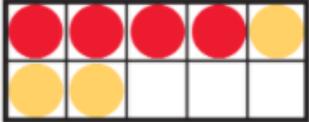
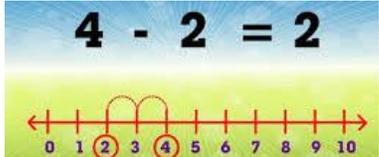
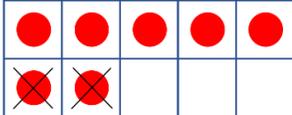


**Math: Grade 1**

Quarter	Math Understanding	The student can...	Support Information
1	Add Within 10	<p>*add with sums up to 10, including word problems.</p> <p>*use the “Count On” strategy to add two numbers.</p> <p>*use a Number Line and Ten Frame to support understanding of addition.</p>	<p><b>Sum</b> – The answer to an addition problem.</p> <p><b>“Count On” Strategy</b> – Counting on is an efficient strategy for adding 1, 2, or 3. Example: <math>6+3 = 9</math> Start at six, then “count on” three -7, 8, 9 to get the answer. Click <a href="#">HERE</a> for a video of the “Count On” Strategy.</p> <p><b>Number Line</b> – Start at one number and “jump” to add on. Example:</p>  <p><b>Ten Frames</b> are used to organize thinking and help visualize problems. Example: <math>4+3</math></p> 
1	Subtract Within 10	<p>*subtract with differences from 0 to 10, including word problems.</p> <p>*use the “Count Back” strategy to subtract two numbers.</p> <p>*use a Number Line and Ten Frame to support understanding of subtraction.</p>	<p><b>Difference</b> – The answer to a subtraction problem.</p> <p><b>“Count Back” Strategy</b> – Counting back is an efficient strategy for subtracting 1, 2, or 3. Example: <math>9 - 3 = 6</math> Start at nine, then “count back” three – 8, 7, 6 to get the answer.</p> <p><b>Number Line</b> Start at the first number and “jump” back to subtract. Example:</p>  <p><b>Ten Frames</b> are used to organize thinking and help visualize problems. Example: <math>7-2=5</math></p> 

1

Apply Addition Strategies

\*add numbers with sums up to 20, including word problems and problems with three addends.

\*understand and apply the Commutative Property of Addition and the Associative Property of Addition.

\*use the "Make a Ten" strategy to solve addition problems.

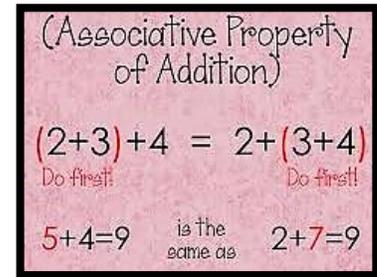
\*use Doubles Facts as a strategy when solving addition problems.

\*determine if an equation is true or false; write numbers to make an equation true.

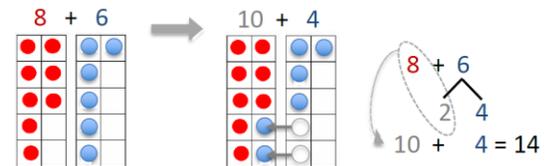
**Addends** – Numbers that are added to form a sum. *Example: the numbers 3, 5, and 7 are the addends in this equation:  $3+5+7=15$ .*

**Commutative Property of Addition** – When you add two numbers, you can change the order of the addends without changing the sum. *Example: If I know that  $6+2=8$ , then I know that  $2+6=8$ .*

**Associative Property of Addition** – When you add three or more numbers, you can add in any order without changing the sum.



**"Make a Ten" Strategy -**



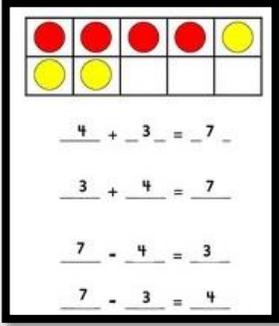
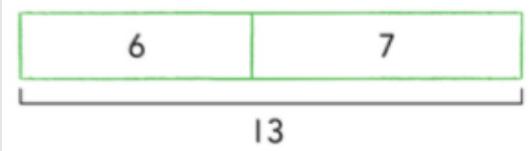
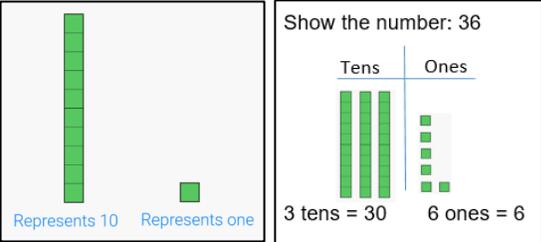
Click [HERE](#) for a video of the "Make a Ten" Strategy to add. Begin at 3:36.

**Doubles Fact** – An addition fact that includes two of the same number, such as  $2+2$  and  $5+5$ .

Click [HERE](#) for a video of the **Using Doubles Facts Strategy**.

**Equation** – A number sentence that shows two quantities are equal. *Examples:  $3 + 2 = 5$  and  $12 = 4 + 6 + 2$*

*Writing "2" in the blank would make this equation true:  $8 + \underline{\quad} = 10$ .*

2	Relate Addition & Subtraction	*identify and write related facts.	<p><b>Related Facts</b> - Related facts, or <b>Fact Families</b>, have the same three numbers in four equations. Two are addition and two are subtraction.</p> 
2	Use Addition & Subtraction	<p>*write addition and subtraction equations, within 20, to solve word problems.</p> <p>*use pictures, counters, 10 frames, and bar models to help solve word problems.</p>	<p><b>Equation</b> – A number sentence that shows two quantities are equal. Examples: <math>10 - 3 = 7</math> <math>12 = 4 + 6 + 2</math></p> <p><b>Bar Models</b> – Bar models are used to help visualize the parts and the whole of a problem. Example: <math>6 + 7 = 13</math>.</p> 
3	Understand Place Value to 100	<p>*understand that the two digits of a two-digit number represent tens and ones.</p> <p>*compare 2 two-digit numbers using the symbols <math>&lt;</math>, <math>&gt;</math> and <math>=</math>.</p> <p>*count by ones starting at a given number.</p>	<p><b>Base Ten Blocks</b> are used to help students visualize numbers.</p>  <p><b>Comparison Symbols</b> are</p> <ul style="list-style-type: none"> <li><math>&gt;</math> Greater than</li> <li><math>&lt;</math> Less than</li> <li><math>=</math> Equal to</li> </ul> <p>Example:  <math>36 &gt; 24</math> "36 is greater than 24"  <math>25 &lt; 45</math> "25 is less than 45"</p> <p>Student starts at any number and continues the counting sequence. Example: Start at 83 and keep counting. 83, <u>84</u>, <u>85</u>, <u>86...</u></p>

3

Use Place Value to Add & Subtract

\*mentally add or subtract ten, and/or multiples of ten, from a two-digit number.

\*add two-digit numbers by adding tens and tens, ones and ones, and compose a ten when necessary.

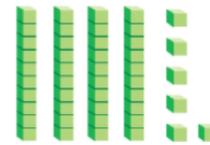
**Mentally:** the student is able to solve a problem "in his/her head" without the use of paper and pencil.

A **Hundred Chart** is used to help students visualize adding/subtracting tens. *Example:  $30 + 40 = 70$*

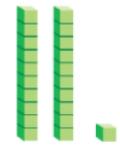
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

To **add using place value**, break a 2-digit number into tens and one. Then, add the tens and add the ones.

Example:  $46 + 21 = 67$



4 tens 6 ones



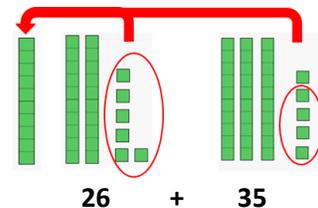
2 tens 1 ones

$6 \text{ tens} + 7 \text{ ones} = 60 + 7 = 67$

Click [HERE](#) to see a video on how to use place value to add.

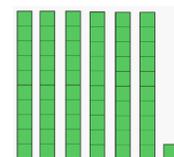
When adding 2 digit numbers, it is necessary to **compose a ten** when there are 10 or more ones.

Example: Solve:  $26 + 35$

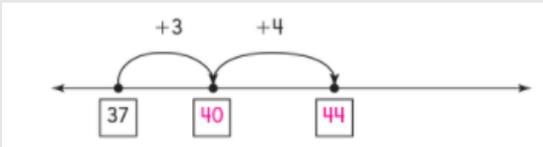
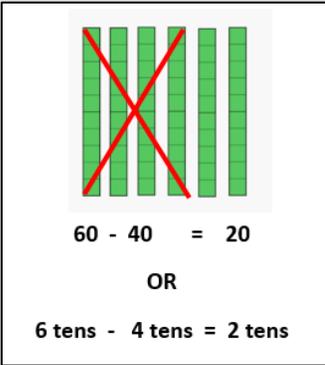
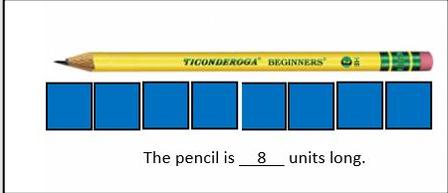


26 + 35

Answer: 61



Click [HERE](#) to see a video on how to add with regrouping.

<p>4</p>	<p>Add &amp; Subtract 2-Digit Numbers</p>	<p>*add and subtract two digit numbers using a variety of strategies: hundreds chart, make a ten, base ten models.</p>	<p><b>Hundreds Chart:</b> see Quarter 3</p> <p><b>“Make a Ten” Strategy:</b> (See Quarter 1 for a basic example.) <i>Example: 37+7=44</i></p>  <p><b>Add with base ten models:</b></p>  <p><b>Subtract with base ten models:</b></p>  <p>60 - 40 = 20 OR 6 tens - 4 tens = 2 tens</p>
<p>4</p>	<p>Measure Length</p>	<p>*measure the length of an object using non-standard units of measurement.</p> <p>*compare objects by length.</p>	<p>Examples of <b>non-standard units</b>: square tiles, paperclips, blocks, etc.</p>  <p>The pencil is <u>  8  </u> units long.</p> <p>Put the lines in order from <b>longest</b> to <b>shortest</b>.</p> 