

Lesson 9 Addition + 9

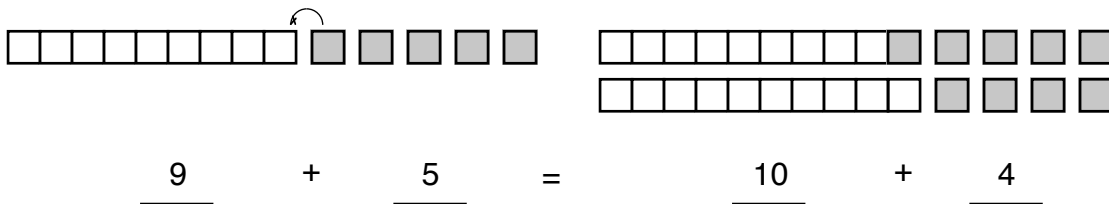
In this lesson we are adding by nines. This is your fun-dation for regrouping, this idea of making or wanting to be ten. Before you go any further, practice counting backwards by one using the unit bars arranged in ascending order from 1 to 9 as in previous lessons. Taking one away, or counting down by one, is essential to our approach for learning to add by 9. See the game below.

I normally introduce this with a short narrative about how nine isn't content because he wants to be ten. Ask most nine year olds how old they want to be, and they say, "Ten!" Children understand Mr. Nine. Next ask, "What does he need to have added to him to be 10?" "One unit!" Nine is therefore always on the prowl, looking for one more, so he can be ten! Using a nine bar and several green unit bars, let's create the equation $9 + 5$. Ham it up anyway you can, perhaps having the student look away or close his eyes. In that instant nine takes one to be ten (or "onety"). See Example 1.

This will be the first time a student has added ten to a number. This concept applies what the student knows about place value. To teach this, start with ten, and ask what you would have if you added two more. $10 + 2 = 12$ Put together a 10 bar and a 2 bar to illustrate this concept.

Example 1

Solve $9 + 5 =$



Nine plus five is equal to ten plus four, or fourteen.

Note that we still have one nine and five units, and it is the same length as one ten and four units. Nine is finally happy, and $10 + 4$ is 14 ("onety-four"). Thus $9 + 5 = 14$. The original 5 has been decreased by 1 from 5 to 4. And 9 has been increased by 1 to be ten. This is what regrouping or carrying is all about!

To remember the written code, let's make the circle on the top of the 9 the end of a vacuum nozzle! Nine is always "sucking up" one. Making the noise is fun and multi-sensory. When a child sees 9, he thinks, "one less", and sucks up one or makes whatever noise you make!! Practice the nines now until you feel sure that the student understands and feels confident adding by nine. Remember this is the "taking one away" that we learned by counting down by one in the game.

There are addition facts songs on the CD/cassette of *Skip Counting and Addition Facts Songs*. These are designed to assist the student in memorizing his facts.

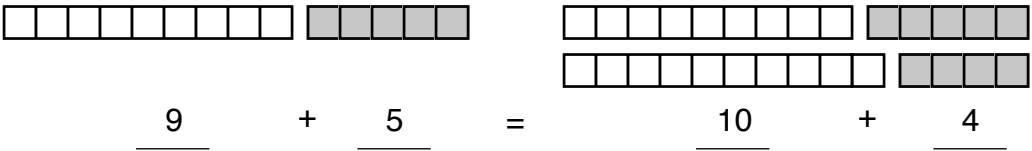
Game to Precede Adding by 9

Smaller Get out the one through nine blocks and stack them in ascending order so the green unit is on the right. Ask the question, "Which number is a one smaller than ()?" or "Which number is a one less than ()?" Do this until they know each one, only then move to learning the 9 facts.

Another way to solve adding by nine is to use the colored unit bars. For $9 + 5$ pick out the lime green bar and the light blue five bar. Place them end to end and say “Nine plus five is the same as ten plus what?” Have the student find the yellow four bar and place it at the end of the blue ten bar. Then say “nine plus five is the same as ten plus four, or fourteen.” See Example 2. Choose whichever way helps the student understand the concept most effectively. Don’t forget to use the same strategies as in previous lessons of presenting the problems by building, writing, and saying to assist in memorizing and understanding these facts.

Example 2

Solve $9 + 5 =$

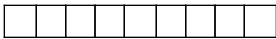

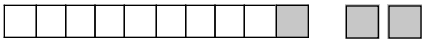


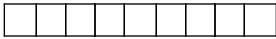

Nine plus five is equal to ten plus four, or fourteen.



With the 9 facts mastered, we have learned 64 out of 100 facts. That is over half!!

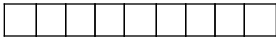

0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9
1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9
2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9
3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9
4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9
5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9
6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9
7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9
8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9
9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9

Build, match, write, and say. The first one is done for you.

1)  +  = 
9 8 _____ + _____ = _____

2)  +  = _____
 _____ + _____ = _____

3)  +  = _____
 _____ + _____ = _____

4)  +  = _____
 _____ + _____ = _____

_____ + _____ = _____

Build, write, and say.

5) $\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$	6) $\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$	7) $\begin{array}{r} 9 \\ + 2 \\ \hline \end{array}$	8) $\begin{array}{r} 9 \\ + 3 \\ \hline \end{array}$
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9) $9 + 6 = \underline{\quad}$ 10) $1 + 9 = \underline{\quad}$ 11) $9 + 4 = \underline{\quad}$ 12) $9 + 8 = \underline{\quad}$

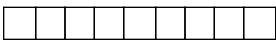

13) Nine boys were playing ball. Seven more joined them. How many boys are playing ball now?

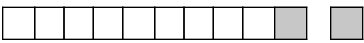
$\underline{9} + \underline{7} = \underline{\quad}$

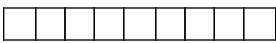

14) Tyler read 9 books the first week of his vacation. The second week he read 9 more. How many books did he read in all?


$\underline{\quad} + \underline{\quad} = \underline{\quad}$

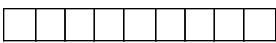

Build, match, write, and say.

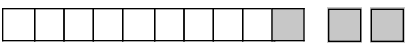
1)  +  =

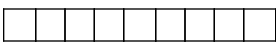

 + _____ = _____

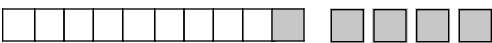
2)  +  =

 + _____ = _____

3)  +  =

 + _____ = _____

4)  +  =

 + _____ = _____

Build, write, and say.

5)
$$\begin{array}{r} 9 \\ + 8 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$

8)
$$\begin{array}{r} 9 \\ + 1 \\ \hline \end{array}$$

9) $5 + 9 = \underline{\quad}$ 10) $0 + 9 = \underline{\quad}$ 11) $9 + 3 = \underline{\quad}$ 12) $9 + 9 = \underline{\quad}$

13) Billy had nine little block sets. He got six more sets for his birthday and Christmas. How many sets does he have now?
_____ + _____ = _____

14) Ryan had 3 CD's. If he bought 9 more, how many CD's would he have in all?
_____ + _____ = _____

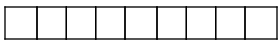


Sample Student Text Page

Build, match, write, and say.

1)

 +  = 
_____ + _____ = _____



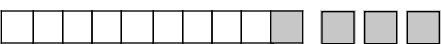
2)

 +  = 
_____ + _____ = _____

3)

 +  = 
_____ + _____ = _____

4)

 +  = 
_____ + _____ = _____

Build, write, and say.

5)

7
+ 9

6)

9
+ 8

7)

9
+ 2

8)

9
+ 4

9) $6 + 9 = \underline{\hspace{2cm}}$ 10) $9 + 3 = \underline{\hspace{2cm}}$ 11) $9 + 9 = \underline{\hspace{2cm}}$ 12) $9 + 0 = \underline{\hspace{2cm}}$

13) Sandi ate 9 candies, then she ate 5 more. How many candies did she eat in all?

_____ + _____ = _____

14) Fritha's dog had nine puppies. How many dogs in all does Fritha have now?

_____ + _____ = _____

Build, write, and say.

$$\begin{array}{r} 1) \quad 9 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 5 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 40 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 9 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 200 \\ + 200 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 5 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 1 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 9 \\ + 6 \\ \hline \end{array}$$

$$9) \quad 9 + 0 = \underline{\quad\quad} \quad 10) \quad 8 + 9 = \underline{\quad\quad} \quad 11) \quad 7 + 2 = \underline{\quad\quad} \quad 12) \quad 9 + 1 = \underline{\quad\quad}$$

Solve for the unknown.

$$13) \quad \underline{\quad\quad} + 4 = 13$$

$$14) \quad \underline{\quad\quad} + 2 = 6$$

Build and say the number.

$$15) \quad 461$$

**Sample
Student Text
Page**

Skip count by ten and write the numbers.

$$16) \quad \underline{10}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{80}, \underline{\quad\quad}, \underline{\quad\quad}$$

$$17) \quad \text{Chad is eight years old. How old will he be in nine more years?}$$

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

$$18) \quad \text{Seven guests have been served either milk or juice. Six are drinking juice. How many are drinking milk?}$$

$$\underline{\quad\quad} + \underline{6} = \underline{7}$$

Build, write, and say.

$$\begin{array}{r} 1) \quad 9 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 4 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 60 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 0 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 9 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 8 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 300 \\ + 100 \\ \hline \end{array}$$

$$9) \quad 5 + 9 = \underline{\quad\quad} \quad 10) \quad 2 + 4 = \underline{\quad\quad} \quad 11) \quad 8 + 6 = \underline{\quad\quad} \quad 12) \quad 1 + 7 = \underline{\quad\quad}$$

Solve for the unknown.

$$13) \quad \underline{\quad\quad} + 8 = 17$$

$$14) \quad \underline{\quad\quad} + 5 = 7$$

Build and say the number.

$$15) \quad 249$$

**Sample
Student Text
Page**

Skip count by ten and write the numbers.

$$16) \quad \underline{\quad\quad}, \underline{20}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{90}, \underline{\quad\quad}$$

17) I saved 9 dollars for a gift that cost 12 dollars. How many more dollars do I need to save?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

18) Dave called his friend 4 times on Monday and 2 times on Tuesday. How many calls did he make those two days?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

On Wednesday, he made 9 more calls. How many calls did he make in all?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

Build, write, and say.

$$\begin{array}{r} 1) \quad 8 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 9 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 2 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 80 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 0 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 9 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 6 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 10 \\ + 50 \\ \hline \end{array}$$

$$9) \quad 9 + 4 = \underline{\quad\quad} \quad 10) \quad 2 + 9 = \underline{\quad\quad} \quad 11) \quad 2 + 7 = \underline{\quad\quad} \quad 12) \quad 9 + 5 = \underline{\quad\quad}$$

Solve for the unknown.

$$13) \quad \underline{\quad\quad} + 9 = 15$$

$$14) \quad \underline{\quad\quad} + 3 = 5$$

Build and say the number.

$$15) \quad 52$$

**Sample
Student Text
Page**

Skip count by ten and write the numbers.

$$16) \quad \underline{\quad\quad}, \underline{\quad\quad}, \underline{30}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}, \underline{100}$$

17) There are 7 children in the family. Two have eaten lunch. How many more children need to eat?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

18) Abigail wanted 9 rubber ducks in her wading pool. She put in 5 and her friend put in 2. How many ducks are in the pool so far?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

How many more ducks must she put in to make 9?

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

**Sample
Test Booklet
Page**

Test 9

Write and say.

1)
$$\begin{array}{r} 0 \\ + 9 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 6 \\ + 9 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 9 \\ + 2 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 3 \\ + 9 \\ \hline \end{array}$$

7) $9 + 1 = \underline{\hspace{2cm}}$

8) $8 + 9 = \underline{\hspace{2cm}}$

9) $9 + 7 = \underline{\hspace{2cm}}$

10) $4 + 9 = \underline{\hspace{2cm}}$

11) $6 + 1 = \underline{\hspace{2cm}}$

12) $7 + 2 = \underline{\hspace{2cm}}$

Solve for the unknown.

13) $\underline{\hspace{2cm}} + 9 = 11$

14) $\underline{\hspace{2cm}} + 2 = 6$

15) $\underline{\hspace{2cm}} + 1 = 4$

Skip count by ten and write the numbers.

16) $\underline{10}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{50}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

- 17) Jared read 9 books last week and 8 books this week. How many books did he read in all?




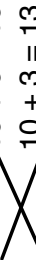
$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

- 18) Alexa has 6 dollars. She needs 8 dollars to buy a game she wants. How many more dollars does she need?

$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Sample Teacher Manual Page

9C

- 1) $9 + 6 =$ 
- 2) $9 + 9 =$ 
- 3) $9 + 4 =$ 
- 4) $9 + 7 =$ 
- 5) 16
- 6) 17
- 7) 11
- 8) 13
- 9) 15
- 10) 12
- 11) 18
- 12) 9
- 13) $9 + 5 = 14$
- 14) $9 + 1 = 10$

9D

- 1) 18
- 2) 7
- 3) 50
- 4) 16
- 5) 400
- 6) 14
- 7) 7
- 8) 15
- 9) 9
- 10) 17
- 11) 9
- 12) 10
- 13) 9
- 14) 4
- 15) 4 hundreds, 6 tens, and 1 unit;
four hundred sixty-one
- 16) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100
- 17) $8 + 9 = 17$
- 18) 1





9E

- 1) 12
- 2) 13
- 3) 80
- 4) 4
- 5) 11
- 6) 18
- 7) 10
- 8) 400
- 9) 14
- 10) 6
- 11) 14
- 12) 8
- 13) 9
- 14) 2
- 15) 2 hundreds, four tens, and 9 units;
two hundred forty-nine
- 16) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100
- 17) $\underline{3} + 9 = 12$
- 18) $4 + 2 = 6$; $6 + 9 = 15$





9F

- 1) 17
- 2) 16
- 3) 4
- 4) 90
- 5) 0
- 6) 12
- 7) 8
- 8) 60
- 9) 13
- 10) 11
- 11) 9
- 12) 14
- 13) 6
- 14) 2
- 15) 5 tens and 2 units; fifty-two
- 16) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100
- 17) $\underline{5} + 2 = 7$
- 18) $5 + 2 = 7$; $7 + \underline{2} = 9$ (the unknown may be put
in the first or second blank of the equation)

10A

- 1) $8 + 5 =$ 
- 2) $8 + 8 =$ 
- 3) $8 + 3 =$ 
- 4) $8 + 6 =$ 
- 5) 9
- 6) 11
- 7) 15
- 8) 17
- 9) 10
- 10) 12
- 11) 13
- 12) 14
- 13) $8 + 2 = 10$
- 14) $8 + 4 = 12$

10B

- 1) $8 + 4 =$ 
- 2) $8 + 9 =$ 
- 3) $8 + 7 =$ 
- 4) $8 + 2 =$ 
- 5) 13
- 6) 16
- 7) 9
- 8) 11
- 9) 14
- 10) 15
- 11) 17
- 12) 12
- 13) $8 + 8 = 16$
- 14) $8 + 3 = 11$