

2 - 1

Addition

Addition Algorithm (1)

Example Calculate $25 + 14$ by using the algorithm.

	Tens	Ones
25	2	5
+ 14	1	4

	3	9

	Tens	Ones
25	2	5
+ 14	1	4

	3	9

Line up the numbers vertically in each place.

Calculate each place separately.

Calculation of the ones place

$$5 + 4 = 9$$

Calculation of the tens place

$$2 + 1 = 3$$

$$25 + 14 = 39$$

Calculate the following problems by using the algorithm.

1

	Tens	Ones
23	2	3
+ 14	1	4

	□	□

2

	Tens	Ones
25	2	5
+ 41	4	1

	□	□

3

	Tens	Ones
36	3	6
+ 23	2	3

	□	□

4

	Tens	Ones
43	4	3
+ 35	3	5

	□	□

5

	Tens	Ones
62	6	2
+ 23	2	3

	□	□

2 - 2

Addition

Addition Algorithm (2)

Example Calculate $30 + 24$ by using the algorithm.

Tens	Ones
30	
+ 24	
<hr/>	
54	

Tens	Ones
30	
20	4

↓

Tens	Ones
30	
+ 24	
<hr/>	
54	

Tens	Ones
30	
20	4

Line up the numbers vertically in each place.

Calculate each place separately.

Calculation of the ones place

$$0 + 4 = 4$$

Calculation of the tens place

$$3 + 2 = 5$$

$$30 + 24 = 54$$

Calculate the following problems by using the algorithm.

1

Tens	Ones
30	
+ 14	
<hr/>	

Tens	Ones
30	
10	4

2

Tens	Ones
20	
+ 36	
<hr/>	

Tens	Ones
20	
30	6

3

Tens	Ones
49	
+ 30	
<hr/>	

4

Tens	Ones
27	
+ 40	
<hr/>	

5

Tens	Ones
30	
+ 50	
<hr/>	

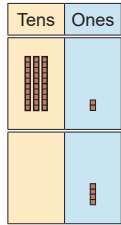
2 - 3

Addition

Addition Algorithm (3)

Example Calculate $32 + 4$ by using the algorithm.

Tens	Ones
3	2
+	4
<hr/>	



Line up the numbers vertically in each place.



“4” does not have any numbers in the tens place. Remember “4” is the same as “04”. Therefore, this addition problem is same as the previous problem.

Calculate each place separately.

Calculation of the ones place

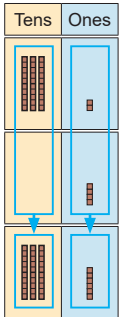
$$2 + 4 = 6$$

Calculation of the tens place

Only 3

$$32 + 4 = 36$$

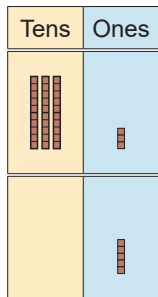
Tens	Ones
3	2
+	4
<hr/>	
3	6



Calculate the following problems by using the algorithm.

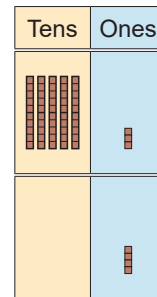
1

Tens	Ones
3	2
+	5
<hr/>	



2

Tens	Ones
5	3
+	4
<hr/>	



3

Tens	Ones
6	5
+	3
<hr/>	

4

Tens	Ones
2	2
+	7
<hr/>	

5

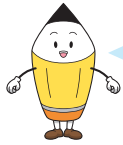
Tens	Ones
8	2
+	4
<hr/>	

2 - 4

Addition

Addition Algorithm (4)

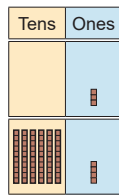
Example Calculate $3 + 64$ by using the algorithm.



When we write this addition problem by using the algorithm, which is correct?

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 3 \quad \quad \\ + 64 \\ \hline \end{array} \quad \text{or} \quad \begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 3 \\ + 64 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 3 \\ + 64 \\ \hline \end{array}$$



Line up the numbers vertically in each place.

Calculate each place separately.

Calculation of the ones place

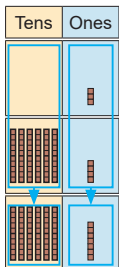
$$3 + 4 = 7$$

Calculation of the tens place

$$6$$

$$3 + 64 = 67$$

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 3 \\ + 64 \\ \hline 67 \end{array}$$



Calculate the following problems by using the algorithm.

1

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 3 \\ + 62 \\ \hline \end{array}$$

2

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 5 \\ + 54 \\ \hline \end{array}$$

3

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 4 \\ + 23 \\ \hline \end{array}$$

4

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 7 \\ + 82 \\ \hline \end{array}$$

5

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ \quad \quad 6 \\ + 31 \\ \hline \end{array}$$

2 - 5

Addition

Review (1)

1 Calculate the following problems by using the algorithm.

1

	5	1
+	2	3
<hr/>		

2

	3	5
+	5	4
<hr/>		

3

	3	6
+	3	2
<hr/>		

4

	2	0
+	1	8
<hr/>		

5

	2	5
+	4	0
<hr/>		

6

	3	0
+	1	0
<hr/>		

7

	5	2
+		6
<hr/>		

8

		2
+	4	3
<hr/>		

2 Calculate the following problems by using the algorithm.

1

$34 + 15$

+		
<hr/>		

2

$13 + 22$

+		
<hr/>		

3

$61 + 25$

+		
<hr/>		

4

$20 + 70$

+		
<hr/>		

5

$48 + 50$

+		
<hr/>		

6

$10 + 34$

+		
<hr/>		

7

$63 + 6$

+		
<hr/>		

8

$7 + 70$

+		
<hr/>		

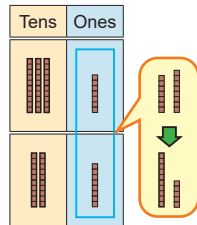
2 - 6

Addition

Addition Algorithm (5)

Example Calculate $37 + 28$ by using the algorithm.

Tens	Ones
3	7
+	2
2	8



Line up the numbers vertically in each place.

Calculation of the ones place

$$7 + 8 = 15$$

7 and 8 make 15 (10 and 5).

Regroup 1 to the tens place.

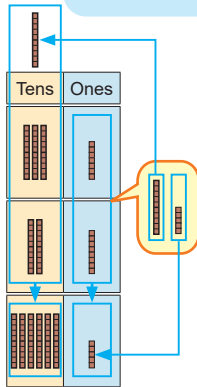
Calculation of the tens place

The regrouped 1 and 3 make 4.

$$4 + 2 = 6$$

$$37 + 28 = 65$$

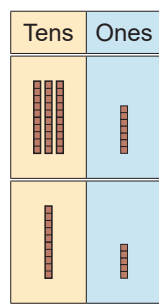
Tens	Ones
3	7
+	2
2	8
<hr/>	
6	5



Calculate the following problems by using the algorithm.

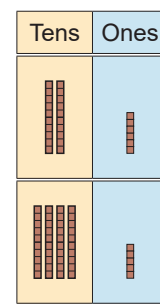
1

Tens	Ones
3	7
+	1
5	5
<hr/>	



2

Tens	Ones
2	6
+	4
5	5
<hr/>	



3

Tens	Ones
1	8
+	2
9	9
<hr/>	

4

Tens	Ones
4	4
+	3
8	8
<hr/>	

5

Tens	Ones
5	9
+	2
6	6
<hr/>	

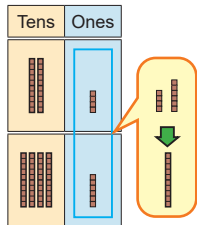
2 - 7

Addition

Addition Algorithm (6)

Example Calculate $24 + 46$ by using the algorithm.

Tens	Ones
2	4
<hr/>	
+	4 6



Line up the numbers vertically in each place.

Calculation of the ones place



$$4 + 6 = 10$$

4 and 6 make 10.

Regroup 1 to the tens place.

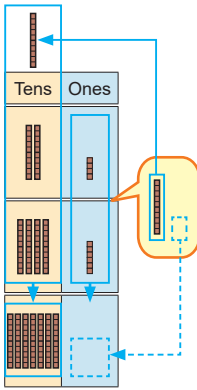
Calculation of the tens place

The regrouped 1 and 2 make 3.

$$3 + 4 = 7$$

$$24 + 46 = 70$$

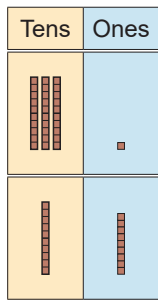
Tens	Ones
2	4
<hr/>	
+	4 6
7	0



Calculate the following problems by using the algorithm.

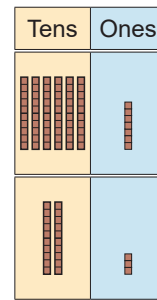
1

Tens	Ones
3	1
<hr/>	
+	1 9



2

Tens	Ones
6	7
<hr/>	
+	2 3



3

Tens	Ones
1	2
<hr/>	
+	2 8

4

Tens	Ones
4	6
<hr/>	
+	2 4

5

Tens	Ones
2	5
<hr/>	
+	5 5

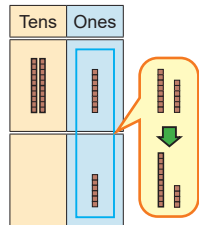
2 - 8

Addition

Addition Algorithm (7)

Example Calculate $28 + 6$ by using the algorithm.

Tens	Ones
2	8
+	6
<hr/>	



Line up the numbers vertically in each place.

Calculation of the ones place

$$8 + 6 = 14$$

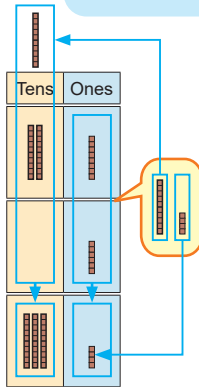
8 and 6 make 14 (10 and 4).

Regroup 1 to the tens place.

Calculation of the tens place

The regrouped 1 and 2 make 3.

Tens	Ones
2	8
+	6
<hr/>	
3	4

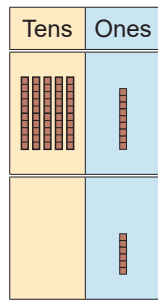


$$28 + 6 = 34$$

Calculate the following problems by using the algorithm.

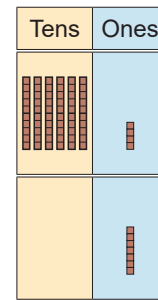
1

Tens	Ones
5	9
+	6
<hr/>	



2

Tens	Ones
6	4
+	7
<hr/>	



3

Tens	Ones
7	3
+	8
<hr/>	

4

Tens	Ones
4	7
+	6
<hr/>	

5

Tens	Ones
3	5
+	9
<hr/>	

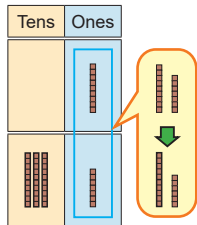
2 - 9

Addition

Addition Algorithm (8)

Example Calculate $9 + 37$ by using the algorithm.

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 9 \\ + 37 \\ \hline \end{array}$$



Line up the numbers vertically in each place.

Calculation of the ones place



$$9 + 7 = 16$$

9 and 7 make 16 (10 and 6).

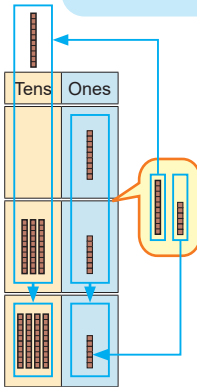
Regroup 1 to the tens place.

Calculation of the tens place

The regrouped 1 and 3 make 4.

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ | \quad 9 \\ + 37 \\ \hline 46 \end{array}$$

1 + 3

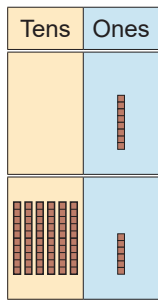


$$9 + 37 = 46$$

Calculate the following problems by using the algorithm.

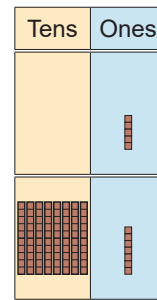
1

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 8 \\ + 66 \\ \hline \end{array}$$



2

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 5 \\ + 87 \\ \hline \end{array}$$



3

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 4 \\ + 39 \\ \hline \end{array}$$

4

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 7 \\ + 58 \\ \hline \end{array}$$

5

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 6 \\ + 26 \\ \hline \end{array}$$

2 - 10

Addition

Addition Problems

Example There are two second grade classes in my school. One class has 36 students and another class has 35 students. How many second grade students are there altogether?

Math Sentence

$$36 + 35 = 71$$

Answer students

	3	6
+	3	5
	7	1

1 I have 27 notebooks and my sister has 26 notebooks. How many notebooks are there altogether?

Math Sentence

Answer notebooks

+		

2 My friend read 23 pages of a book yesterday. He read 37 pages today. How many pages did he read altogether?

Math Sentence

Answer pages

+		

3 My brother had 6 pencils. He bought 24 more pencils today. How many pencils does he have altogether?

Math Sentence

Answer pencils

+		

2 - 11

Addition

Review (2)

1 Calculate the following problems by using the algorithm.

1 $24 + 17$ **2** $34 + 57$ **3** $67 + 18$ **4** $25 + 45$

+		

+		

+		

+		

5 $38 + 7$ **6** $54 + 6$ **7** $8 + 16$ **8** $4 + 38$

+		

+		

+		

+		

2 Put an \times over the mistakes. Write the correct algorithm on the right.

1 $\underline{38 + 12}$

	3	8
+	1	2
	4	0

2 $\underline{16 + 45}$

	1	6
+	4	5
	5	1

3 $\underline{6 + 27}$

	6	
+	2	7
	8	7

4 $\underline{20 + 4}$

	2	0
+	4	
	6	0

3 Answer the following questions.

1 I had 25 pieces of candy. My mother gave me 15 pieces of candy. How many pieces of candy do I have now?

Math Sentence

+		

Answer pieces of candy

2 36 children were playing in the park. Then 18 children came to the park. How many children are there now?

Math Sentence

+		

Answer children

3 I picked 24 flowers in the park. My father picked 37 flowers. How many flowers did we pick altogether?

Math Sentence

+		

Answer flowers

4 Make math sentences that have an answer of 32.
The numbers 1 to 9 can be used in the . You can use the same number repeatedly.

+ = 32 + = 32

+ = 32 + = 32

+ = 32

