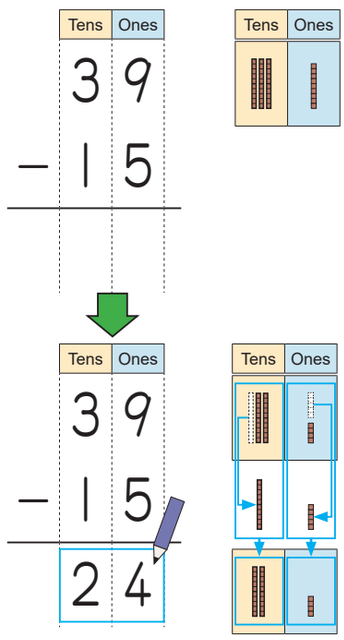
3 - 1 Subtraction

Addition Algorithm (1)

Example Calculate 39 − 15 by using the algorithm.



Line up the numbers vertically in each place.

Calculate each place separately.

Calculation of the ones place

$9 - 5 = 4$

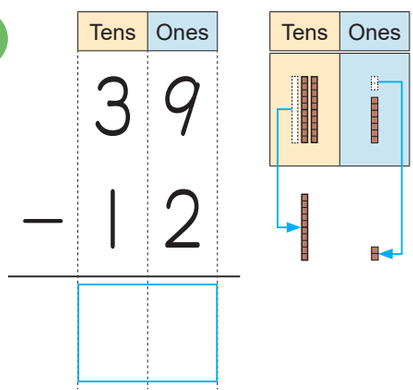
Calculation of the tens place

$3 - 1 = 2$

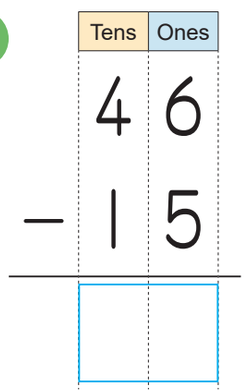
$39 - 15 = 24$

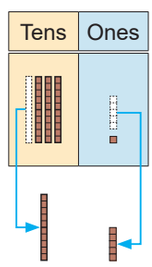
Calculate the following problems by using the algorithm.

1

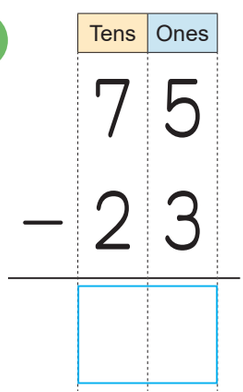


2

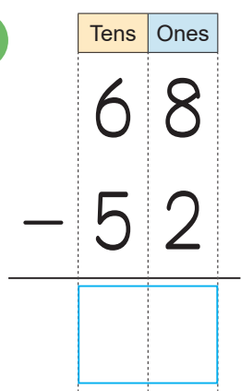




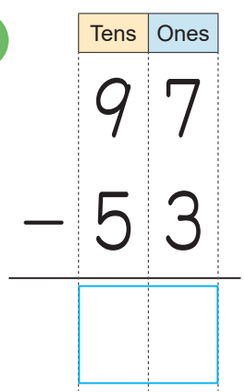
3



4



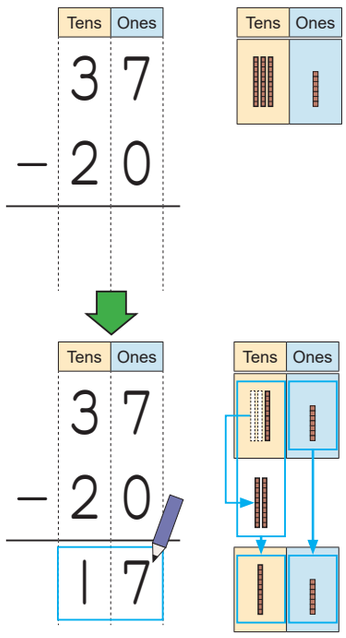
5



3 - 2 Subtraction

Subtraction Algorithm (2)

Example Calculate 37 − 20 by using the algorithm.



Line up the numbers vertically in each place.

Calculate each place separately.

Calculation of the ones place

$7 - 0 = 7$

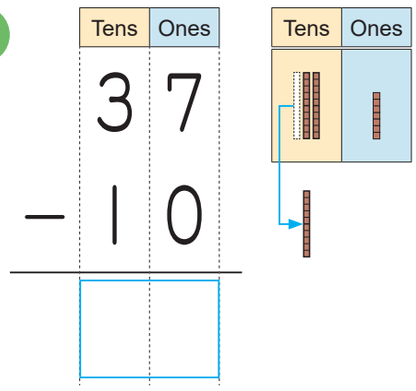
Calculation of the tens place

$3 - 2 = 1$

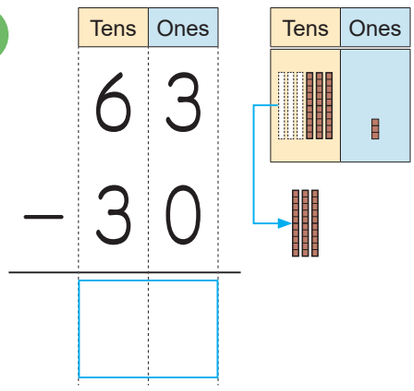
$37 - 20 = 17$

Calculate the following problems by using the algorithm.

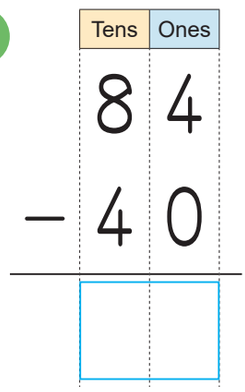
1



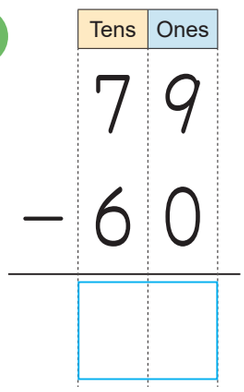
2



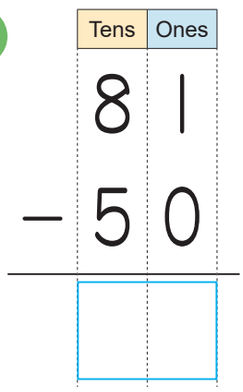
3



4



5



3 – 3 Subtraction

Subtraction Algorithm (3)

Example Calculate 37 − 5 by using the algorithm.

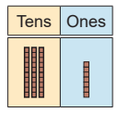
When we write this subtraction problem by using the algorithm, which is correct?

Tens	Ones
3	7
− 5	

or

Tens	Ones
3	7
−	5

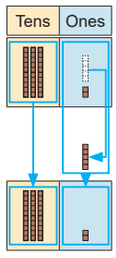
Tens	Ones
3	7
−	5



Line up the numbers vertically in each place. Calculate each place separately.

"5" does not have any numbers in the tens place. Remember "5" is the same as "05". Therefore, this problem is same as the previous problem.

Tens	Ones
3	7
−	5
3	2



Calculation of the ones place

7 − 5 = 2

Calculation of the tens place

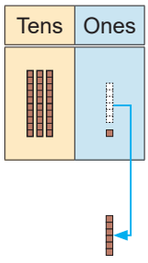
No calculation

37 − 5 = 32

Calculate the following problems by using the algorithm.

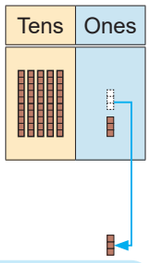
1

Tens	Ones
3	7
−	6



2

Tens	Ones
5	6
−	3



Nothing is left in the ones place.

3

Tens	Ones
7	8
−	6

4

Tens	Ones
4	5
−	4

5

Tens	Ones
2	1
−	1

3 - 4 Subtraction

Review (1)

1 Calculate the following problems by using the algorithm.

1

	4	5
−	2	1

2

	5	8
−	3	7

3

	7	8
−	3	5

4

	9	4
−	6	1

5

	6	8
−	4	0

6

	3	5
−	2	0

7

	8	7
−		4

8

	1	9
−		8

2 Calculate the following problems by using the algorithm.

1 85 − 41

−		

2 58 − 23

−		

3 88 − 16

−		

4 73 − 40

−		

5 66 − 20

−		

6 95 − 15

−		

7 65 − 2

−		

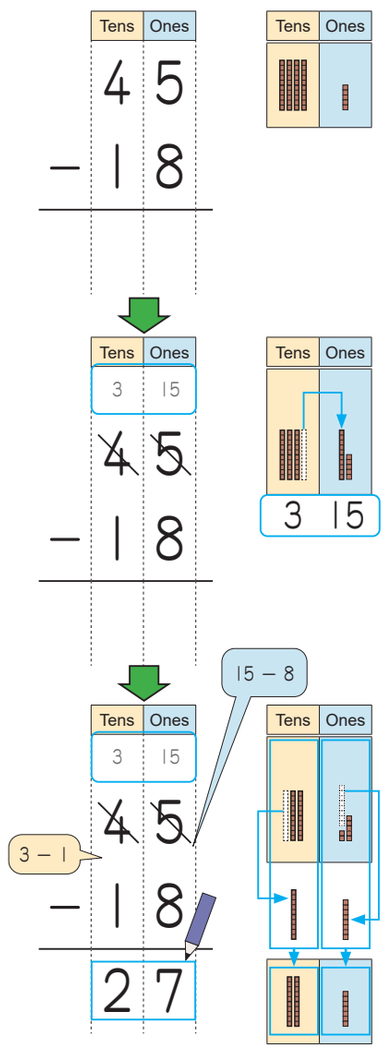
8 57 − 4

−		

3 - 5 Subtraction

Subtraction Algorithm (4)

Example Calculate 45 − 18 by using the algorithm.



Line up the numbers vertically in each place.

Calculation of the ones place

You can't take 8 from 5.
You need to regroup from the tens place.

$$15 - 8 = 7$$

Calculation of the tens place

Since you regrouped, the tens place becomes 3.

$$3 - 1 = 2$$

This actually means "30 − 10 = 20", doesn't it?

$$45 - 18 = 27$$

1 Calculate the following problems by using the algorithm.

1

Tens	Ones
3	15
4	5
− 1	6

3 − 1 = 2 ; 15 − 6 = 9

2

Tens	Ones
2	13
3	3
− 1	6

2 − 1 = 1 ; 13 − 6 = 7

3

Tens	Ones
4	13
5	3
− 2	5

4 − 2 = 2 ; 13 − 5 = 8

4

Tens	Ones
5	13
6	3
− 1	9

5 − 1　　13 − 9

5

Tens	Ones
7	16
8	6
− 4	7

7 − 4　　16 − 7

6

Tens	Ones
6	12
7	2
− 2	6

6 − 2　　12 − 6

7

Tens	Ones
8	15
9	5
− 6	9

8 − 6　　15 − 9

8

Tens	Ones
7	12
8	2
− 4	4

7 − 4　　12 − 4

9

Tens	Ones
3	11
4	1
− 2	3

3 − 2　　11 − 3

2 Calculate the following problems by using the algorithm.

1

Tens	Ones
9	4
− 7	8

2

Tens	Ones
6	7
− 1	9

3

Tens	Ones
8	3
− 2	4

4

Tens	Ones
5	6
− 2	9

5

Tens	Ones
4	7
− 1	9

6

Tens	Ones
5	1
− 2	8

7

Tens	Ones
7	1
− 2	4

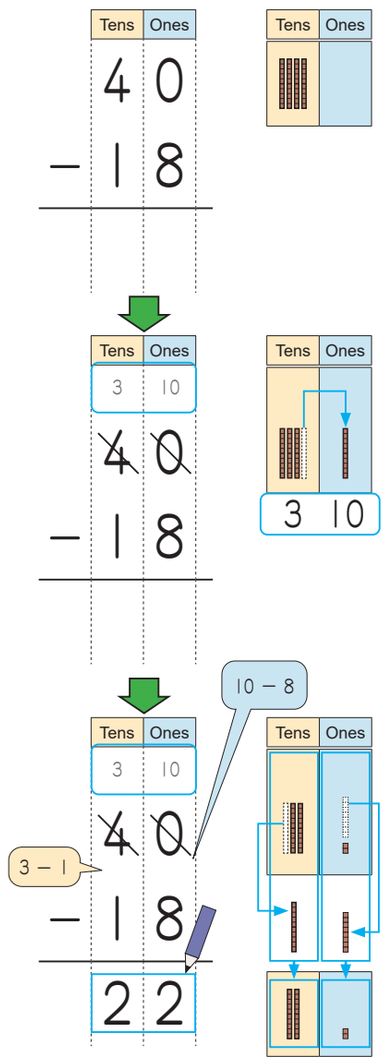
8

Tens	Ones
8	4
− 5	6

3 – 6 Subtraction

Subtraction Algorithm (5)

Example Calculate 40 − 18 by using the algorithm.



Line up the numbers vertically in each place.

Calculation of the ones place

You can't take 8 from 0.
You need to regroup from the tens place.

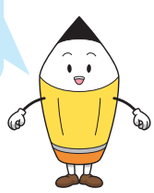
$$10 - 8 = 2$$

Calculation of the tens place

Since you regrouped, the tens place becomes 3.

$$3 - 1 = 2$$

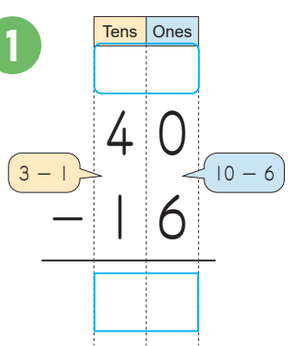
This actually means "30 − 10 = 20", doesn't it?



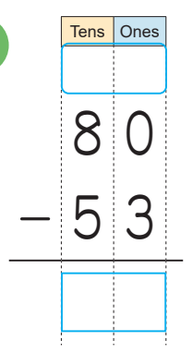
$$40 - 18 = 22$$

Calculate the following problems by using the algorithm.

1



2



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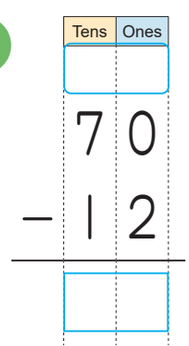
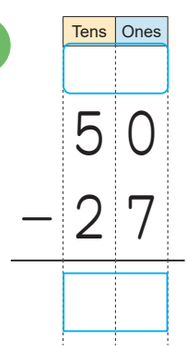


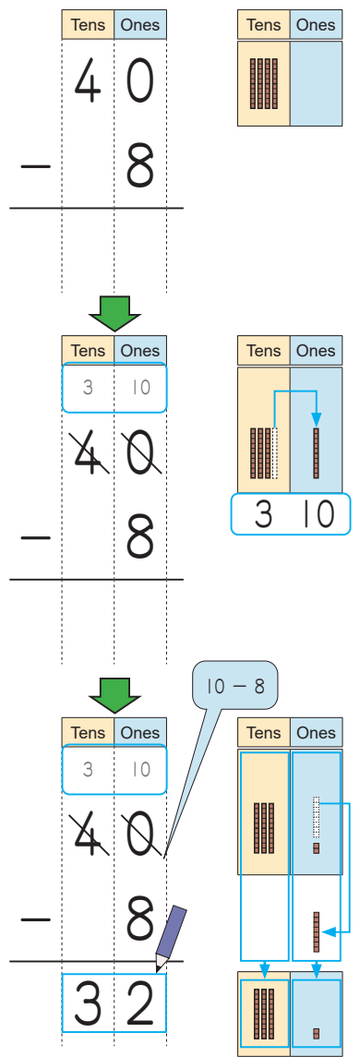
4



3 - 7 Subtraction

Subtraction Algorithm (6)

Example Calculate 40 − 8 by using the algorithm.



Line up the numbers vertically in each place.

Calculation of the ones place

You can't take 8 from 0.
You need to regroup from the tens place.

$$10 - 8 = 2$$

Calculation of the tens place

Since you regrouped, 4 in the tens place becomes 3. There is nothing being subtracted from it. So, it is simply 3.

$$40 - 8 = 32$$

Calculate the following problems by using the algorithm.

1 Tens Ones
4 0
10 − 3
− 3

2 Tens Ones
8 0
− 6

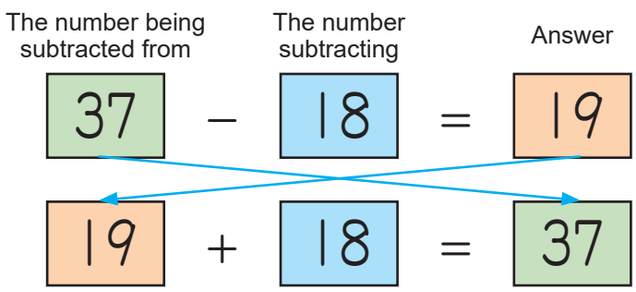
3 Tens Ones
9 0
− 5

4 Tens Ones
7 0
− 2

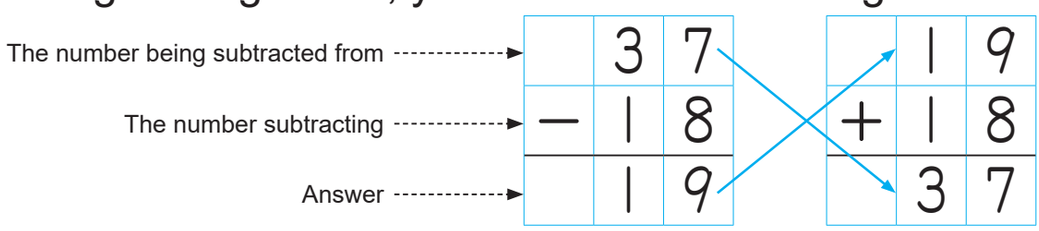
3 - 8 Subtraction

Properties of Subtraction

Instruction If you add the number being subtracted to the answer, you will get the number you are subtracting from.

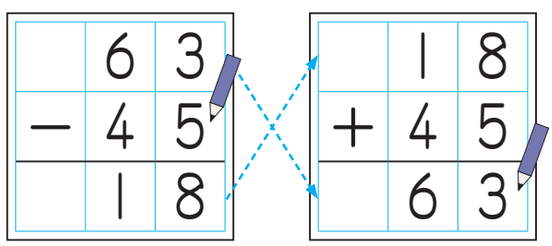


By using the algorithm, you can do the following.



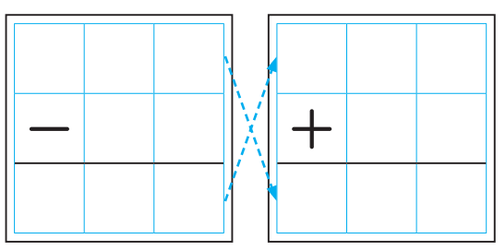
Example Calculate and find the answer.
Then check the answer using addition.

63 − 45

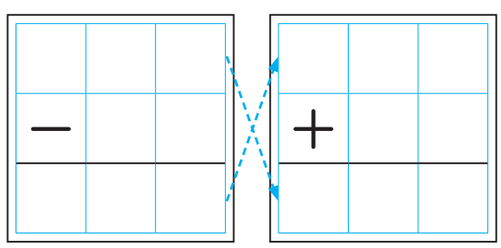


Calculate and find the answers. Then check the answers using addition.

1 44 − 29



2 56 − 18



3 - 9 Subtraction

Subtraction Problems

Example My brother is reading a 96-page book. He has already read 51 pages. How many pages are left?

Math Sentence: 96 − 51 = 45

Answer 45 pages

	9	6
−	5	1
	4	5

1 I had 43 pieces of candy. I gave 28 pieces of candy to my friends. How many pieces of candy do I have left?

Math Sentence

Answer ☐ pieces of candy

−		

2 There are 55 flowers in the park. If we pick 15, how many will be left?

Math Sentence

Answer ☐ flowers

−		

3 My class library has 48 books. Today it has 27 books. How many books have been checked out?

Math Sentence

Answer ☐ books

−		

3 – 10 Subtraction

Review (2)

1 Calculate the following problems by using the algorithm.

1. 66 – 49
2. 57 – 38
3. 65 – 36
4. 45 – 29

5. 75 – 47
6. 83 – 48
7. 60 – 26
8. 73 – 8

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

1. 33 – 15

	3	3
–	1	5
	2	2

2. 58 – 39

	5	8
–	3	9
	2	9

3. 50 – 45

	5	0
–	4	5
	1	5

4. 73 – 5

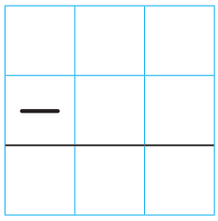
	7	3
–	5	
	2	3

3 Answer the following questions.

1 There are 36 students in my class. 19 students are boys. How many girls are there?

Math Sentence ☐

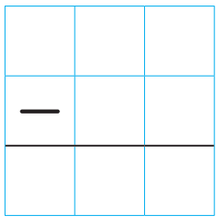
Answer ☐ girls



2 My mother had 50 necklaces. She gave 25 necklaces to her friends. How many necklaces does my mother have left?

Math Sentence ☐

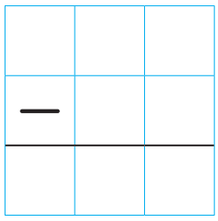
Answer ☐ necklaces



3 There are 93 books in my house. I lent 9 of them to my classmates. How many books are left?

Math Sentence ☐

Answer ☐ books



4 Make math sentences that have an answer of 36. The numbers 2, 3, 5, 6 and 8 can be used in the ☐. You can use the same number repeatedly.

☐☐ − ☐☐ = 36 ☐☐ − ☐☐ = 36

☐☐ − ☐☐ = 36

☐☐ − ☐☐ = 36

How many math sentences can you make?