There are 3 dishes of 4 eggs on them. How many eggs are there?


It is the 4 times table.

There are 3 dishes of nothing on them. How many eggs are there?
 We can write the calculation even with multiplying 0 .

We get 0 with multiplying 0 by any number.

Let's play darts game with a paper written 0,1 and 2 on it. We throw a pencil to the target.


We throw it aiming high marks.

Let's calculate the score.
We multiply the marks we've hit.

mark


Calculate the score by filling in the boxes of 2 and 3 marks.


$$
0+3+\square+\square=\square
$$


mark


Let's add up all the scores.


Example Multiply.

# $0 \times 3=$ <br> $\Rightarrow 0 \times 3=$ 

Exercise Multiply.
(1) $0 \times 4=\square$
(2) $7 \times 0=\square$
(3) $8 \times 3=\square$
(4) $9 \times 5=\square$
(5) $6 \times 7=\square$
(6) $7 \times 4=\square$
(7) $0 \times 2=\square$
(8) $8 \times 0=\square$
(9) $7 \times 9=\square$
(11) $6 \times 6=\square$
(11) $0 \times 6=\square$
(12) $9 \times 0=\square$
(3) $8 \times 9=\square$
(44) $6 \times 3=\square$
(5) $9 \times 8=\square$
(16) $8 \times 6=\square$

## Do you remember the rule of multiplication?

increase by 1 decrease by 1


The answer of $3 \times 2$ is
The answer of $3 \times 5$ is $\square$ more than the answer of $3 \times 6$. more than the answer of $3 \times 1$.
 This means if the number after the $\times$ increases by 1 , the answer increases by 3 in the three times table.
The answer of $3 \times 2$ is 3 more than the answer of $3 \times 1$.
The answer of $3 \times 5$ is 3 more than the answer of $3 \times 6$. Good!

## Let's write the number sentence for the rule.

The answer of $3 \times 2$ is 2 more than the answer of $3 \times 1$.
$3 \times 2=3 \times 1+$
 less than the answer of $3 \times 6$.
The answer of $2 \times 6$ is
$3 \times 5=3 \times 6-$ $\square$

The answer of $3 \times 2$ is 3 more than the answer of $3 \times 1$.
$3 \times 2=3 \times 1+$


The answer of $2 \times 6$ is 3 less than the answer of $3 \times 6$. $3 \times 5=3 \times 6-2$


Good!

If one side of the equation is 3 more than the other, we can get the same answer by adding 3 to the other side, and vice versa.

## Do you remember another rule of multiplication?

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 |

## We can get

 the same answer by changing the order of the multiplication.The answer of $4 \times 3$ is the same as the answer of $3 \times$ 3

## Let's write the rule of calculation.

The answer of $4 \times 3$ is the same as the answer of $3 \times$
$3 \times 4=4 \times \square$

The answer of $4 \times 3$ is the same as the answer of $3 \times 2$. $3 \times 4=4 \times$


Example Fill in the $\square$.

$$
3 \times 2=3 \times 1+\square 3 \times 2=3 \times 1+3
$$

Exercise
Fill in the $\square$

(2) $2 \times 7=7 \times \square$
(3) $9 \times 2=9 \times 3-\square$
(4) $5 \times 4=4 \times$
(5) $4 \times 4=4 \times 5-\square$
(7) $3 \times 6=3 \times 7-\square$
(9) $2 \times 9=2 \times 8+\square$
(6) $6 \times 2=\square \times 6$
(11) $6 \times 4=6 \times 3+\square$
(8) $8 \times 5=\square \times 8$
(10) $7 \times 3=3 \times \square$
(13) $8 \times 6=8 \times 5+\square$
(12) $8 \times 7=7 \times \square$
(14) $3 \times 5=5 \times \square$
(15) $5 \times 5=5 \times 6-\square$
(16) $8 \times 3=\square \times 8$
(17) $7 \times 5=7 \times 6-\square$
(18) $9 \times 2=\square \times 9$
(19) $9 \times 3=9 \times 4-\square$
(20) $7 \times 6=6 \times \square$

## We make a vertical 6

 as a group. So we have 5 group horizontally. This means we can calculate 6 $\times 5$.

We divide vertical 6 into 2 and 4. There are two groups which are 5 group of 2 and 5 group of 4. The number of
 is $2 \times 5$ plus $4 \times 5=30$

## $4 \times 5=20$

$10+20=30$



## Next let's divide number horizontally.



We make a vertical $6 \bigcirc$ as a group. So we have 5 group horizontally. This means we can calculate $6 \times 5$.

We divide horizontal 5 into 2 and 3 . There are two groups which are 2 group of 6 and 3 group of 2 . The number of $P$ is $6 \times 2$ plus $6 \times 3=30$

The number of $P$ is the same, so the two types of
solution can be one formula. The meaning of $(6 \times 2)$ and $(6 \times 3)$

$$
6 \times 5=(6 \times 2)+(6 \times 3)
$$

Divide 5 into 2 and 3 before $\times$, and multiply 6 each firstly. If we plus two answers, this is the same number as $6 \times 5$.

Example Fill in the $\square$

$$
6 \times 5=(2 \times 5)+(\square \times 5) \Rightarrow 6 \times 5=(2 \times 5)+(\square \times 5)
$$

## Exercise Fill in the $\square$.

(1) $5 \times 8=(3 \times 8)+(\square \times 8)$
(2) $4 \times 6=(4 \times 2)+(4 \times$
(3) $7 \times 4=(3 \times 4)+(\square \times 4)$
(4) $6 \times 8=(6 \times 5)+(6 \times$
(5) $9 \times 6=(4 \times 6)+(\square \times 6)$
(6) $3 \times 9=(3 \times 6)+(3 \times$
(7) $8 \times 5=(4 \times 5)+(\square \times 5)$
(8) $5 \times 7=(5 \times 5)+(5 \times$
(9) $9 \times 8=(5 \times 8)+(\square \times 8)$ (10) $7 \times 6=(7 \times 3)+(7 \times$

(11) $6 \times 7=(2 \times 7)+(\square \times 7)$ (12) $8 \times 6=(8 \times 5)+(8 \times$

(13) $9 \times 7=(4 \times 7)+(\square \times 7)$ (14) $4 \times 9=(4 \times 5)+(4 \times$

(15) $5 \times 9=(2 \times 9)+(\square \times 9)$ (16) $3 \times 8=(3 \times 4)+(3 \times$
$3 \times 12$ is in the 3 times table. The 3 times table increases by 3 when the bottom of the number increases by 1.


$$
3 \times 11=33
$$

$$
3 \times 12=36
$$



You can divide the
2) Split 12 into two numbers.

$$
3 \times 12=36
$$

1) Check the 3 times table one by one.

$$
\begin{aligned}
& 3 \times 9=27 \\
& 3 \times 10=30 \begin{array}{l}
\text { increase } \\
\text { by } 3
\end{array}
\end{aligned}
$$

increase by 3
increase
ase

$$
\text { by } 3
$$ 12 into any two numbers like 4 and 8 or 6 and 6 .


$3 \times 12=36$

## Let's find the answer of $12 \times 4$.

## $12 \times 4=\square$

The answer of $12 \times 4$ is the same as $4 \times 12$. $12 \times 4=4 \times 12$

$4 \times 12$ is in the 3 times table.
The 4 times table increases by 4 when the bottom of the number increases by 1 .

1) Check the 3 times table one by one.

$$
4 \times \quad 9=36
$$

$$
4 \times 10=40 \text { by } 4
$$

increase by 4
increase by 4

We split the 12
into to parts and multiply.


You can divide the 12 into any two numbers like 4 and 8 or 3 and 9 .
2) Split 12 into two numbers.


$$
12 \times 4=48
$$

Example Write the answer in the $\square$.

$3 \times 12$

$$
\begin{array}{r}
3 \times 2=36 \\
3 \times 10
\end{array}
$$

In total 36 Good!
Exercise Write the answer in the $\square$.
(1) $6 \times 11$


In total


Exercise Write the answer in the $\square$.
(3) $5 \times 1$

(4) $8 \times 10$

(5) $11 \times 7$

(6) $12 \times 9$


Exercise
Write the answer in the
$\square$.

(8) $7 \times 10<\begin{aligned} & 7 \times 5 \\ & 7 \times \square \\ & \text { In total } \\ & \square\end{aligned}$
(9) $12 \times 3<2 \times 3=\square$

Exercise Write the answer in the
$\square$

(13) $11 \times 5$


Example Multiply. COS Good!

# $3 \times 12=\square \Rightarrow 3 \times 12=36$ 

Exercise Multiply.
(1) $2 \times 10=\square$
(2) $11 \times 2=\square$
(3) $8 \times 11=\square$
(4) $10 \times 4=\square$
(5) $7 \times 12=\square$
(6) $12 \times 6=\square$
(7) $9 \times 10=\square$
(8) $10 \times 8=\square$
(9) $5 \times 12=\square$
(10) $11 \times 7=\square$
(11) $3 \times 11=3$
(12) $12 \times 9=$
(3) $4 \times 12=\square$
(44) $11 \times 3=\square$
(15) $6 \times 12=\square$
(6) $10 \times 5=\square$

Fill in the blanks of the table.

Multiplication table up to 12

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |  |  |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 |  |  |  |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 |  |  |  |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 |  |  |  |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |  |  |  |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 |  |  |  |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 |  |  |  |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 |  |  |  |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |

## $6 \times \square=24$

From the multiplication table, check column of 3, then you can find the answer 15.
From the multiplication
table, the multiplication
which is suitable for this
is $6 \times 4=24$. Good!

The multiplication of $6 \times \square$ is the multiplication table of 6 . So we search the multiplication which answer is 24 from $6 \times 1$.

Examine the multiplication of 6 .
$6 \times 1=6$
$6 \times 2=12$
$6 \times 3=18$
$6 \times 4=24$

$$
6 \times 4=24
$$

$\square$

| We can find the answer <br> 15 which is 3 after the <br> $\times$ <br> from the multiplication <br> table as is on the right. | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

In the multiplication, even we exchange the number before $\times$ and after $x$, the answer is same $\square \times 3=3 \times \square . \quad 3 \times \square$ is the three times table. So we search the multiplication which answer is 15 from $3 \times 1$.

Examine the multiplication of 3

| $3 \times 1=$ | 3 |
| :--- | :--- |
| $3 \times 2=$ | 6 |
| $3 \times 3=$ | 9 |
| $3 \times 4=$ | 2 |
| $3 \times 5=1$ | 5 |



Example Write the answer in the $\square$.
$6 \times \square=24 \Rightarrow 6 \times 4=24$ GoO Good!
Exercise Write the answer in the $\square$.
(1) $4 \times \square=24$
(2) $\square \times 2=14$
(3) $8 \times \square=24$
(4) $\square \times 3=9$
(5) $6 \times \square=42$
(6) $\square \times 5=20$
(7) $9 \times \square=18$
(8) $\square \times 8=64$
(9) $7 \times \square=63$
(10) $\square \times 6=36$
(11) $8 \times \square=40$
(12) $\square \times 4=36$
(13) $8 \times \square=72$
(14) $\square \times 3=6$
(15) $9 \times \square=63$
(16) $\times 6=48$

Exercise Write the answer in the $\square$
(1) $3 \times \square=15$
(19) $3 \times \square=21$
(2) $5 \times \square=10$
(23) $4 \times \square=28$
(25) $2 \times \square=10$
(27) $7 \times \square=56$
(29) $8 \times \square=32$
(31) $7 \times \square=42$
(33) $9 \times \square=54$
(3) $6 \times \square=54$
(1) $\square \times 4=8$
*) $\square \times 3=12$

* $\square \times 9=27$
*) $\square \times 6=12$
(26)
$\square \times 7=35$
(28)

(30)

(3) $\square \times 2=12$
(34) $\square \times 7=49$
(36) $\square \times 5=35$

Let's find the answer of $3 \times 20$.
There are two sets of (10) in 20.


20 multiplied by 3 means that there are 3 pairs of 10 .

## $3 \times 20=\square$



The answer is that there are $2 \times 3$ sets of 10 .

## $3 \times 20=60$ | $(10)$ | $(10$ | 10 |
| :--- | :--- | :--- | :--- | :--- |
| $(10)$ | $(10)$ | $(10)$ |

$2 \times 3=6$.
There are 6 sets of 10 . $20 \times 3=60$.

Let's find the answer of $200 \times 3$.

## $3 \times 200=\square$

There are three sets of (100) in 20.


## $3 \times 200=600$



The answer is that there are $2 \times 3$ sets of 100 . $2 \times 3=6$. There are 6 sets of 100 . $20 \times 3=60$.
$2 \times 3$ parts are the same but the size of the sets are different.

Example Write the answer in the $\square$.
$3 \times 20=\square 3 \times 20=60$


Exercise Write the answer in the $\square$.

(2) $6 \times 20=\square$

(6) $5 \times 60=\square$


## Exercise Solve.


(8) $3 \times 90=\square$


(11) $5 \times 200=$

(12) $4 \times 400=\square$


## (14) $2 \times 600=\square$



Example Solve.
(@) Good!

# $3 \times 20=\square \Rightarrow 3 \times 20=60$ 

Exercise Solve.
(1) $3 \times 60=\square$
(3) $7 \times 80=\square$
(5) $7 \times 50=\square$
(7) $2 \times 90=\square$
(8) $8 \times 40=$
(9) $9 \times 700=\square$ (10 $6 \times 600=$
(11) $4 \times 800=\square$ (12) $6 \times 400=$
(13) $9 \times 200=\square$ (14) $3 \times 500=\square$
(6) $8 \times 900=\square$ (16) $6 \times 300=$

There are 12 tomatoes. If we put 4 tomatoes in a bowl, how many bowls do we need?


We divide 12 tomatoes into 4 bowls each.


We divide 12 tomatoes into 4 bowls each.


We divide 12 tomatoes into 4 bowls each,

Let's write a number sentence of "division" to find out the number of tomatoes.


If we put 12 tomatoes in bowls.
Each bowl has 4 tomatoes.

We use " $\div$ " and "=" for division.

If we put 12 tomatoes in
Each bowl has 4 tomatoes.
(12) $\div$
the total number of tomatoes
$4=$ the number of tomatoes in a bowl


We write a number sentence of division in the following order. 7 (the total number of things) $\div$ (the number of things in a group)
$=$ (the number of group)
$12 \div 4$ means that we divide 12 tomatoes into 4 each.

There are 12 tomatoes. If we share them with 4 members, how many tomatoes does each of us have?


We share 12
tomatoes with 4
members equally.


## Let's write a number sentence of "division" to find out the number of tomatoes per person.



If we want to know the numbers of tomatoes per person, we use division.

If we share the 12 tomatoes
with 4 members equally, Each one has


We also write a number sentence of division in the following order.
7 (the total number of things) $\div$ (the number of group)
$=$ (the number of things in a group)

## $12 \div 4$ means that we divide 12

 tomatoes with 4 members equally.Example Fill in the $\square$ to make a number sentence of division.
There are 12 tomatoes. If we put four tomatoes in each bowl, how many bowls do we have?


Exercise
Fill in the $\square$ to make a number sentence of division.

1) There are 8 tomatoes. If we put two tomatoes in each bowl, how many bowls do we have?

(2) There are 16 tomatoes. If we put four tomatoes in each bowl, how many bowls do we have?

(3) There are 28 tomatoes. If we put seven tomatoes in each bowl, how many bowls do we have?

(4) There are 15 tomatoes. If we put three tomatoes in each bowl, how many bowls do we have?

(5) There are 32 tomatoes. If we put eight tomatoes in each bowl, how many bowls do we have?

(6) There are 27 tomatoes. If we share with 9 members equally, how many tomatoes do each one has?

(7) There are 56 tomatoes. If we share with 8 members equally, how many tomatoes do each one has?

(8) There are 30 tomatoes. If we share with 6 members equally, how many tomatoes do each one has?

(9) There are 18 tomatoes. If we share with 3 members equally, how many tomatoes do each one has?

(10) There are 45 tomatoes. If we share with 5 members equally, how many tomatoes do each one has?

(11) There are 24 tomatoes. If we share with 4 members equally, how many tomatoes do each one has?

(12) There are 25 tomatoes. If we share with 5 members equally, how many tomatoes do each one has?


## Let's find the answer of division.

When we put 12 tomatoes into some bowls which have 4 tomatoes each. How many bowls do we need? number sentence $12 \div 4$

We put 12 tomatoes into some bowls which have 4 tomatoes each. (b) We can find the number of bowls
 in the 4 times table.

$$
4 \times 1=4
$$


$4 \times 2=8$


The answer of $12 \div 4$.
The number of tomatoes
became 12
when it is $4 \times 3$.


We can find the answer of division using multiplication. The answer of $12 \div 4$ is in the 4 times tables because the number at the bottom is 4 .

## Let's find the answer of another type of division.

If we share 12 tomatoes with 4 members, how many tomatoes does each member have? number sentence $12 \div 4$

We share 12 tomatoes with 4 members equally.
Find out the number of tomatoes.

$2 \times 4=8$


The answer of $12 \div 4$.
The number of tomatoes
became 12
when it is $3 \times 4$.


We can find the answer for sharing 12 tomatoes with 4 members by multiplication in the form of $\square \times 4$.
We can find the answer in the 4 times tables because
$\square \times 4=4 \times \square$.

Example Write the answer in the $\square$.


Exercise Write the answer in the $\square$


Exercise Write the answer in the $\square$.

(8) $24 \dot{+} \div=\square$
$3 \times \square=24$
$\square$


Example Divide.
ç3 Good!

# $12 \div 4=\square \Rightarrow 12 \div 4=\square$ 

Exercise Divide.
(1) $24 \div 4=\square$
(2) $14 \div 2=\square$
(3) $21 \div 3=\square$
(4) $18 \div 9=\square$
(5) $42 \div 7=\square$
(6) $15 \div 5=\square$
(7) $27 \div 3=\square$
(8) $4 \div 4=\square$
(9) $63 \div 9=\square$
(10) $36 \div 6=\square$
(11) $6 \div 6=\square$
(12) $36 \div 4=\square$
(13) $72 \div 9=\square$
(14) $24 \div 6=\square$
(15) $64 \div 8=\square$
(16) $48 \div 6=\square$

Exercise Divide.
(17) $3 \div 3=\square$
(14) $21 \div 7=\square$
(27) $10 \div 2=\square$
(23) $8 \div 8=\square$
(25) $10 \div 5=\square$
(27) $48 \div 8=\square$
(29) $28 \div 4=\square$
(11) $18 \div 6=\square$
(3) $72 \div 8=\square$
(35) $45 \div 9=\square$
(8) $8 \div 4=\square$
(2) $12 \div 3=\square$
(22) $27 \div 9=\square$
(44) $12 \div 6=\square$
(26) $5 \div 5=$
(2) $30 \div 5=\square$
(30) $56 \div 7=\square$
(32) $18 \div 2=$
(3) $49 \div 7=$
(6) $25 \div 5=$

Exercise Divide.
(37) $6 \div 3=\square$
(39) $7 \div 7=\square$
(41) $6 \div 2=\square$
(43) $16 \div 8=\square$
(45) $45 \div 5=\square$
(47) $56 \div 8=\square$
(4) $32 \div 4=\square$
(51) $42 \div 6=\square$
(53) $54 \div 6=\square$
(5) $54 \div 9=\square$
(8) $16 \div 4=\square$
(10) $9 \div 3=\square$
(4) $9 \div 9=\square$
(4) $15 \div 3=\square$
(46) $40 \div 5=\square$
(48) $30 \div 6=\square$
(5) $63 \div 7=\square$
(3) $12 \div 2=\square$
(84) $28 \div 7=\square$
(6) $35 \div 5=$ $\square$


If the number of bananas is 0 , how many bananas do each of them have.



Example Divide.
©(S) GOOd!
$0 \div 3=$

## $\Rightarrow 0 \div 3=0$

Exercise Divide.
(1) $0 \div 4=\square$
(2) $7 \div 1=\square$
(3) $8 \div 1=\square$
(4) $0 \div 5=\square$
(5) $0 \div 7=\square$
(6) $0 \div 6=\square$
(7) $5 \div 5=\square$
(8) $8 \div 8=\square$
(9) $0 \div 9=\square$
(10) $6 \div 6=\square$
(11) $7 \div 7=\square$
(12) $9 \div 9=\square$
(13) $6 \div 1=\square$
(14) $4 \div 1=\square$
(15) $0 \div 8=\square$
(16) $9 \div 1=\square$

There are 6 sets of (10) in 60.

## $60 \div 3=\square$



We divide 60 by 3, we divide 6 sets of (10) into 3 groups.

\section*{$60 \div 3=\square$ <br>  <br> | 10 |
| :--- |
| 10 |}

The answer is that there are $6 \div 3$ sets of (10).

## $60 \div 3=20$



## Let's compare the 2 number sentences.

## $6 \div 3=$ <br> $60 \div 3=20 \sim 2$ sets of 10

$6 \div 3$ is the same but the size of sets are different.

Example Divide.
$60 \div 3=$ $60 \div 3=20$


Exercise Divide.
(1) $80 \div 4=\square$
(2) $90 \div 3=\square$

(3) $60 \div 2=\square$

(4) $40 \div 2=\square$

(5) $50 \div 5=\square$
(10) (10) (10) (10) (10) $\rightarrow$

## Let's think about the way to solve $69 \div 3$.



69 consists of 6 sets of (10) and 9 (1).

(10) (10) 10 We can just divide the
 sets of (10) and(1) by 3 respectively.



The answer consists of $6 \div 3$ sets of (10) and $9 \div 3$ (1).



There are $6 \div 3$ sets of (10), so $60 \div 3=20$. $9 \div 3=3$ (1).
The answer is $20+3$.

Good!

Let's write a number sentence we've shown in a diagram.


## $69 \div 3$ <br> $60 \div 3^{\text {Weanget the }}$ answer of $69 \div 3$ by adding the 20 and 3 which we got by <br> $9 \div$ <br> 3 dividing 60 and 9 by 3 respectively.

## We divide 60 and 9

 by 3 respectively.

Example Divide.
$69 \div 3=$ $\square$


(2) $36 \div 3=$ $\square$

(3) $82 \div 2=$ $\square$

(4) $63 \div 3=$ $\square$


## Exercise Divide.



Example Divide.
s@3 Good!
$69 \div 3=\square \Rightarrow 69 \div 3=23$

Exercise Divide.
(1) $60 \div 3=$
(2) $80 \div 4=\square$
(3) $90 \div 3=\square$
(4) $40 \div 2=\square$
(5) $50 \div 5=\square$
(6) $90 \div 3=\square$
(7) $96 \div 3=\square$
(8) $48 \div 4=\square$
(9) $66 \div 6=\square$
(10) $86 \div 2=\square$
(11) $88 \div 4=\square$
(12) $48 \div 2=$
(13) $99 \div 9=\square$
(14) $99 \div 3=\square$
(15) $39 \div 3=\square$
(16) $84 \div 4=$

There are 14 tomatoes. If we put 4 tomatoes in a bowl, how many bowls do we need?


## Let's find out the answer using a diagram.



We have 3
bowls and 2 tomatoes left over when we put the 14 tomatoes by 4 each.


Let's find the answer of $14 \div 4$.

$$
\begin{aligned}
14 \div 4 & =\square \\
4 & \times \square=\square
\end{aligned}
$$

We can use the "4 times table" like $12 \div 4$ or $16 \div 4$.

Next, we find the remainder.

$$
\begin{aligned}
14 \div 4 & =\square \\
4 & \times \boxed{3}=\square 2 \\
14-12 & =\square
\end{aligned}
$$ in the answer in "4 times table" which is less than 14 is 12 .

The biggest number 14 is 12 .


$$
\begin{aligned}
14 \div 4 & =\begin{array}{lll}
3 & R & 2 \\
& \times 3=12
\end{array}
\end{aligned}
$$

We can get the remainder by subtracting 12 from 14 , the number at the top.

$$
14-12=2
$$

Do you know if they have a remainder before you calculate?

Tick in the $\square$ of division with a remainder.


We should look for the answer of $13 \div 3$ in the " 3 times table".

Tick in the $\square$ of division with a remainder.


Example Tick divisions with a remainder.
$\square 14 \div 4 \Rightarrow$ V $14 \div 4$

We put 3 onions from a bag in each bowl. How many bowls do we need and how many left over?


## The answer varies depending on the number of onions in the bag.

The number
of onions in
the bag $\begin{aligned} & \text { The number } \\ & \text { of the onions } \\ & \text { on the bowl }\end{aligned} \begin{aligned} & \text { The number } \\ & \text { of the bowl }\end{aligned}$
$12 \div 3=4$
$13 \div 3=4 \mathrm{R} 1$
$14 \div 3=4 \mathrm{R} 2$
$15 \div 3=5$
$16 \div 3=5 \mathrm{R} 1$
$17 \div 3=5 \mathrm{R} 2$
$18 \div 3=6$

The remainder of $16 \div 3$ is $1,17 \div 3$ is 2 and $18 \div 3$ is 0 . The remainder is smaller than the divisor.

Example Write to the wrong answer and write the correct answer.


$$
14 \div 4=2 \mathrm{R} 6
$$

$$
14 \div 4=2 \mathrm{R} 6
$$


Good!

Exercise Write $\mathbf{~ t o ~ t h e ~ w r o n g ~ a n s w e r ~ a n d ~ w r i t e ~ t h e ~ c o r r e c t ~ a n s w e r . ~}$


$$
17 \div 3=4 \quad \mathrm{R} 5
$$

(2) $\square$

$$
15 \div 4=4 R 1
$$

(3) $\square$
$26 \div 5=5 \quad \mathrm{R} \quad 1$
(4) $\square 30 \div 6=4 \mathrm{R} 6$

Example Write the answer in the $\square$.


Exercise Write the answer in the $\square$.


Example Write the answer in the $\square$. Good! $14 \div 4=\square$ R
$R$


Exercise Write the answer in the $\square$.
(1) $9 \div 2=\square$
$R \quad \square$
(2) $30 \div 4=\square$
$R$
(3) $14 \div 5=\square$
$R \quad \square$
(4) $26 \div 6=\square$
$R$
(5) $55 \div 9=\square \mathrm{R} \square$
(6) $44 \div 6=\square$
$\mathbf{R} \square$
(7) $14 \div 3=\square$
$R \quad \square$
(8) $15 \div 7=\square$
$R$

(9) $34 \div 8=\square$
$R \quad \square$
(10) $48 \div 9=\square$
$\mathbf{R} \square$
(11) $20 \div 3=\square \mathrm{R} \square$
(12) $42 \div 8=\square$
$\mathbf{R} \square$
(13) $50 \div 7=\square R \quad \square$
(14) $39 \div 4=\square$
$R$

Example Write the answer in the Good!
$14 \div 4=\square \Rightarrow 14 \div 4=3 R^{2} 2$
Exercise Write the answer in the $\square$.
(1) $50 \div 8=$
(2) $10 \div 9=\square$
(3) $17 \div 2=\square$
(4) $11 \div 2=\square$
(5) $10 \div 4=\square$
(6) $60 \div 7=\square$
(7) $48 \div 5=$
$860 \div 8=\square$
(9) $20 \div 9=\square$
(10) $65 \div 9=\square$

(12) $34 \div 4=\square$
(13) $58 \div 6=\square$
(14) $75 \div 8=\square$

There are 14 tomatoes. If we put 5 tomatoes in a bowl, how many bowls do we need?


$$
14 \div 5=\square
$$

We use the " 5 times table" because we put them 5 each.

## We got the answer.

$$
14 \div 5=2 \begin{array}{lll}
2 & R & 4
\end{array}
$$

Let's think about how to check the answer.

First, we check if the remainder is smaller than the divisor. Next, add the number of tomatoes in the bowls to the remainders and if the sum is equal to the original number.

$5>4$ the remainder is smaller than the divisor answer in this way.
$5 \times 2+4=1$

| The number of |
| :---: | :---: | :---: |
| the things in |
| the group |, | The number |
| :---: |
| of the group | Remainder | The total |
| :---: |
| number |

Example Divide. Check the answer.
$14 \div 5=\square R \square$
$5 \times \square+\square=\square$
凸
$14 \div 5=2 \mathrm{4}$
$5 \times 2+4=14$
Good!

Exercise Divide. Check the answer.

(3) $20 \div 6=\square \mathrm{R} \square$
$6 \times \square+\square=\square$

Exercise Divide. Check the answer.
(4) $45 \div 6=\square R \square$

(5) $18 \div 5=\square R \square$ $5 \times \square+\square=\square$
(6) $30 \div 9=\square \mathrm{R} \square$ $9 \times \square+\square=\square$
(7) $40 \div 6=\square R \quad \square$ $6 \times \square+\square=\square$
(8) $28 \div 3=\square \mathrm{R} \square$
$3 \times \square+\square=\square$

Exercise Divide. Check the answer.

(10) $30 \div 7=\square R \square$


There are 14 tomatoes. If we put 5 tomatoes in a bowl, how many bowls do we need?


First, we check if the remainder is smaller than the divisor. Next, add the number of tomatoes in the bowls to the remainders and if the sum is equal to the original number.

$5>4$ the remainder is smaller than the divisor
$5 \times 2+4=$
The number of
the things in

the group The number Remainder The total | of the group |
| :--- |
| number |

Example Divide. Check the answer.
$14 \div 5=\square R \square$
$5 \times \square+\square=\square$
凸
$14 \div 5=2 \mathrm{4}$
$5 \times 2+4=14$
Good!

Exercise Divide. Check the answer.

(3) $20 \div 6=\square \mathrm{R} \square$
$6 \times \square+\square=\square$

Exercise Divide. Check the answer.
(4) $45 \div 6=\square R \square$

(5) $18 \div 5=\square R \square$ $5 \times \square+\square=\square$
(6) $30 \div 9=\square \mathrm{R} \square$ $9 \times \square+\square=\square$
(7) $40 \div 6=\square R \quad \square$ $6 \times \square+\square=\square$
(8) $28 \div 3=\square \mathrm{R} \square$
$3 \times \square+\square=\square$

Exercise Divide. Check the answer.

(10) $30 \div 7=\square R \square$


## Let's look at how to write the number more than 9999.

$$
\begin{aligned}
9+1 & =\square \\
99+1 & =\square \\
999+1 & =\square \\
9999+1 & =\square
\end{aligned}
$$



Answer the number
increased by one.

$$
\begin{aligned}
9+1 & =110 \\
99+1 & =100
\end{aligned}
$$

The number which one more than 9999 has

$$
999+1=1000
$$ four 0s.



$$
9999+1=10000<C_{G o o d l}
$$



The numbers from 10001 also increases by one. Let's look at how to read.


Tenthousand one



Tenthousand one

Tenthousand two


Ten thousand two

We read
1001 as 1000
and 1.


What is the number which some 10000 gather together?

Two 10000 is
Three 10000 is
Four 10000 is

## 20000

 30000Five 10000 is 50 000, six 10000 is 60000 seven 10000 is 70000 , eight 10000 is 80000 and nine 10000 is 90000 .

One 10000 is 10000

C(S) Two 10000 is Good!

Three 10000 is

## Four 10000 is 40000

10000 ten thousand

20000 twenty thousand

30000 thirty thousand

40000 forty thousand

50000 fifty thousand

60000 sixty thousand

70000 seventy thousand

80000 eighty thousand

90000 ninety thousand
$\left\{\begin{array}{l}20000 \text { is } 20 \text { of } 1000 \\ \text { We also represent from } 30000 \text { to } 90000 \text { by using sets of } 1000 \text {. }\end{array}\right.$

## Example Write how to read the numbers in $\square$

## 10000 <br> 10001 <br> ten thousand <br> ten thousand one

Exercise Write how to read the numbers in $\square$.


Exercise Write how to read the numbers in $\square$.


Let's look at the numbers from 99999 increased by one.

# $99999+1=$ <br> <br> $9999+1$ is 10000 <br> <br> $9999+1$ is 10000 <br> <br> $99999+1=100000$ 

 <br> <br> $99999+1=100000$}

Let's read 100000.

## 100000

hundred thousand
hundred
thousand
100000 has hundred of 1000.


Let's compare how to read 1000,10000 and 100000.


1000
one thousand
ten thousand

100000 hundred thousand

The numbers from 100001 also increases by one. Let's look at how to read.


Hundred thousand one Hundred thousand two


What is the number which some 100000 gather together?

## Two 100000 is 200000 Three 100000 is 300000 Four 100000 is 400000 <br> Good! <br> 

Five 100000 is 500000 , six 100000 is 600000 seven 100000 is 700 000, eight 100000 is 800000 and nine 100000 is 900000.

| 100000 | hundred thousand |
| :--- | :--- |
| 200000 | two hundred thousand |
| 300000 | three hundred thousand |
| 400000 | four hundred thousand |
| 500000 | five hundred thousand |
| 600000 | six hundred thousand |
| 700000 | seven hundred thousand |
| 800000 | eight hundred thousand |
| 900000 | Nine hundred thousand |

## 200000 is 200 of 1000

We also represent from 300000 to 900000 by using sets of 1000 .

Example Write how to read the numbers in $\square$.

100000
100001
hundred thousand
hundred thousand one


Exercise Write how to read the numbers in $\square$.


Exercise Write how to read the numbers in $\square$.


Let's look at the numbers from 999999 increased by one.

## $999999+1=$

$99999+1$ is 100000.

## $999999+1=1000000$

Let's read 1000000
1000000
one million
one
million
1000000 has one of 1000000.


The numbers from 1000001 increases by one. Let's look at how to read

The numbers from 100001 also read 100 000 and 1.


What is the number which some 1000000 gather together?
Two 1000000 is
Three 1000000 is
Four 1000000 is

Good!

# 1000000 is 2000000 

 Three 1000000 is 3000000 Four 1000000 is 4000000Five 1000000 is 5000000 , six 1000000 is 6000000 seven 1000000 is 7000000 , eight 1000000 is 8000000 and nine 1000000 is 9000000 .

Let's read the number from 1000000 to 9000000.

| 1000000 | One miltion |
| :--- | :--- |
| 2000000 | Two million |
| 3000000 | three miltion |
| 4000000 | four miltion |
| 5000000 | five mitlion |
| 6000000 | six million |
| 7000000 | seven mitlion |
| 8000000 | eight miltion |
| 9000000 | Nine miltion |

2000000 is 2 of 1000000.
We also represent from 3000000 to 9000000 by using sets of 1000000 .

Example Write how to read the numbers in $\square$.

1000000
1000001

One million
One million one


Exercise Write how to read the numbers in $\square$.


Exercise Write how to read the numbers in $\square$.


Let's look at the numbers from 9999999 increased by one.


## $9999999+1=10000000$



The numbers from 10000001 increases by one.


What is the number which some 100000 gather together?

## Two 10000000 is <br> Three 10000000 is

Four 10000000 is
Ce3 Two 10000000 is 20000000
Good Thre 10000000 is 30000000 Four 10000000 is 40000000

Five 10000000 is 50000 000, six 10000000 is 6000000
seven 10000000 is 70000 000, eight 10000000 is 80000000 and nine 10000000 is 90000000 .

| 10000000 | ten million |
| :---: | :---: |
| 20000000 | twenty million |
| 30000000 | thirty million |
| 40000000 | forty million |
| 50000000 | füty million |
| 60000000 | sixty million |
| 70000000 | seventy million |
| 80000000 | eighty million |
| 90000000 | Ninety million |

[^0]Let's look at the numbers from 99999999 increased by one.

## $99999999+1=$

$9999999+1$ is 10000000.

## $99999999+1=100000000$

Let's read 100000000.

hundred million
hundred million
100000000
has hundred of 1000000.


We read some million from 1000000 to 100000000.
ten million

## 100:000000 hundred million

Example Write how to read the numbers in $\square$.

10000000
10000001

Ten million
Ten million one

Exercise Write how to read the numbers in $\square$.


Exercise Write how to read the numbers in $\square$.


Let's compare "20 000+30 000" and "60 000".
Fill in the $\square$ with $>,<$ or $=$.

# $20000+30000$ 60000 

" $5>3$ " means 5 is larger than 3.

Think "20 000+30 000" and "60 000" as a set of 10000 .


Let's compare "40 000+3 000" and "47000". Fill in the $\square$ with $>,<$ or $=$.

## 47000 $40000+3000$

 Think "40000+3000" and "47000" as a set of 10000 .

Example Fill in the $\square$ with $>,<$ or $=$.

## $20000+30000$ 60000 ©家

Exercise Fill in the $\square$ with $>,<$ or $=$.
(1) $50000+40000$ 80000
(2) 72000 $3000+70000$
(3) $800000-300000$ 600000
(4) $540000 \square 570000-30000$
(5) 420000-100000 400000
(6) $5800000 \square 5000000+80000$
(7) $30000000+20000000$ $90000000-50000000$

Example Fill in the missing number.


01000020000 30000 400005000060000700008000090000


Exercise Fill in the missing number.
(1) One units means
$0 \quad 100002000030000400005000060000700008000090000$ Р
(2)


(3)
 50000

(4)

(5)

## Exercise Fill in the missing number.


(9) One units means
$0 \quad 100000 \quad 200000300000 \quad 400000 \quad 500000$

(10)


10
0

(11)

Example Tick the correct answer.

## 36600

36000
 .

Exercise Tick the correct answer.

(2) 76500 .



Example Write the correct answer in the $\square$.
The number which is made of $2 3 \longdiv { 1 0 0 0 0 }$ is 23000

## Exercise <br> Write the correct answer in the <br> $\square$


(1) The number which is made of 2310000 is
(2) The number which is made of 2310000 is
(3) The number which is made of 23100000 is
(4) The number which is made of 23100000 is
(5) The number which is made of 231000000 is
(6) The number which is made of 231000000 is
(7) The number which is made of 231000 is
(8) The number which is made of 231000 is

## Example Fill in the missing number.

The number which is made of $210000000,11000000,3100000$ and

## $5 \longdiv { 1 0 0 0 0 }$ is 2135000

Exercise Fill in the missing number.
(1) The number which is made of $510000000,71000000,3100000$ and $4 \longdiv { 1 0 0 0 0 }$ is

(2) The number which is made of $310000000,11000000,5100000$ and 010000 is
(3) The number which is made of $210000000,21000000,7100000$ and 110000 is
(4) The number which is made of $710000000,01000000,6100000$ and 310000 is

(5) The number which is made of $810000000,01000000,0100000$ and

2 10000 is

## Example Fill in the missing number. <br> The number which is made of <br> 10000 is 180000.

Exercise Fill in the missing number.
(1) The number which is made of

(2) The number which is made of
(3) The number which is made of
(4) The number which is made of
(5) The number which is made of
(6) The number which is made of


1000000 is 8000000.
(7) The number which is made of
(8) The number which is made of

1000000 is 39000000.

1000 is 180000.

1000 is 570000.

## Example Fill in the missing number.

The numbers which is made of $3,10000000,[5$
$1000000,6,10000$ and $4 \longdiv { 1 0 0 0 0 }$ is 35640000.
Good!


## 1000000 ,

10000 and
$\square 10000$ is 26430000 .
(2) The numbers which is made of

10000000 ,

(3) The numbers which is made of

(4) The numbers which is made of


Exercise Fill in the missing number.
(5) The numbers which is made of $\square 10000000$, $1000000, \square 10000$ and $\square 10000$ is 36900000.
(6) The numbers which is made of

(7) The numbers which is made of

(8) The numbers which is made of

(9) The numbers which is made of



[^0]:    20000000 is 20 of 1000000.
    We also represent from 30000000 to 90000000 by using sets of 1000000 .

