## Let's find the answer of $42 \div 3$.

$42 \div 3=\square$

## (10)

(10)
(10)
(10)
(1)
(1)

## 42 is made of 4 sets of (10) and 2 (1).



## Let's calculate separately by the places.



We divide 4 sets of (10) by $3.4 \div 3=1$ R 1 , so we have 1 set of (10) left.

## Let's split the (10) into (1).


(10) is made of 10 (1). So, there are 12 (1) in total.

$42 \div 3=14$
 is 14 .

## $\frac{\text { " } \mathrm{o} \text { " means } \square, ~ " ~}{\mathrm{t} \text { " me }}$

We write the numbers vertically in addition, subtraction and multiplication. But we write them horizontally in division

$$
3 \longdiv { 4 2 }
$$

Write the two
numbers
horizontally.

## $$
42 \div 3
$$ <br> <br> $42 \div 3$

 <br> <br> $42 \div 3$}

Multiply the
number of divisor
and the answer.

We write 1 below the 4 because it include one 3.

There are $3 \times 1=3$
sets of (10), so we write 3 with aligning the place.

## " o " means $\square$, " t "

$$
42 \div 3
$$

| $\begin{aligned} & \text { Subtract } \\ & \text { numbers at }{ }^{4} \mathrm{t}^{\prime \prime} \end{aligned}$ |  | t | - |
| :---: | :---: | :---: | :---: |
|  |  | 1 |  |
|  | 3 | 4 | 2 |
|  |  |  |  |
|  |  | 1 |  |


| $\begin{array}{\|l} \text { Write the 2 } \\ \text { aigning to the } \\ \text { alace at " } \mathrm{o}^{\prime} \end{array}$ | 1 | 0 |
| :---: | :---: | :---: |
| 3 |  | 2 |
|  | 1 | 2 |

## Copy the 2 at " 0 " down aligning to the place

Write 4 next to 1
because there is 4 sets of 3 in 12.

$$
42 \div 3
$$


$3 \times 4=12$, so we write it aligning the place.

By subtracting 12 from 12, the remainder is 0 .

We continue until we get the smaller
$-12$ number than divisor.

$$
42 \div 3=14
$$

Good!


Exercise Divide.
(1) $34 \div 2=$ $\square$ (2) $57 \div 3=$ $\square$ (3) $52 \div 2=$ $\square$



$$
\begin{array}{|c:c}
126 \\
2 \longdiv { 2 }: \\
-1 & 2 \\
\hline 1: 2 \\
\hline 5 \div 2 \\
\hline 0
\end{array}
$$

(4) $81 \div 3=$ $\square$ (5) $72 \div 4=$ $\square$ (6) $84 \div 7=$

Exercise Divide.
(7) $84 \div 3=$ $\square$ (8) $52 \div 2=$ $\square$ (9) $87 \div 3=$ $\square$

$$
\begin{array}{r|r|}
\hline t: 8 \\
\hline 38 \\
-16 \\
\hline-2 & 4 \\
\hline & 2 \div 3 \\
\hline & 0
\end{array}
$$

$$
\begin{array}{r:c}
1 & 6 \\
25 & \\
-4 & \\
\hline-1 & 2 \\
-1: 2 \\
\hline & 0
\end{array}
$$

$$
\begin{array}{r}
29 \\
387 \\
\hline 6 \\
\hline 27 \\
\hline 2 \div 3 \\
\hline 10
\end{array}
$$

$$
\begin{aligned}
& \text { (1) } 72 \div 6= \\
& \begin{array}{|c:c}
10 \\
6: 7: 2 \\
-16 \\
\hline-1 & \\
\hline 1: 2 \\
\hline 1 \div 6 \\
\hline & 0
\end{array}
\end{aligned}
$$

(11) $78 \div 2=$ $\square$ (12) $96 \div 4=$ $\square$

(13) $98 \div 7=$ $\square$ (14) $70 \div 5=$ $\square$ (15) $96 \div 8=$

$$
\begin{array}{r}
\hline t \\
714 \\
798 \\
\hline-28 \\
\hline 28 \\
\hline 10
\end{array}
$$

$9 \div 7$


$$
\begin{array}{r|r}
\hline 1 / 2 \\
898 \\
-8 \\
\hline 1 & 6 \\
-1 & 6 \\
\hline 10 & 0
\end{array}
$$

Example Divide.

$$
42 \div 3=
$$

$\square$

$$
42 \div 3=14
$$




Exercise Divide.

(1) $56 \div 4=$ $\square$ (2) $65 \div 5=$ $\square$ (3) $72 \div 3=$ $\square$

| 4 | $1: 6$ |
| :---: | :---: |
| -4 | 6 |
|  | 1 |
|  | 6 |
|  | 0 |


|  | 1 | 3 |
| :--- | :--- | :--- |
| 5 | 6 | 5 |
| $-1: 5$ |  |  |
|  | 1 | 5 |
|  | 0 |  |

$$
\begin{array}{r}
2 \\
3: 2 \\
-6 \\
\hline-1,2 \\
\hline
\end{array}
$$

(4) $84 \div 6=$ $\square$ (5) $94 \div 2=$ $\square$ (6) $92 \div 4=$ $\square$

| 144 |
| :---: |
| -664 |
| -2 |



$$
\begin{array}{r}
49 \\
-8 \\
\hline 12 \\
-12 \\
\hline 10
\end{array}
$$

Example Divide and write "-".



## "o" means $($ © ,

$65 \div 4$


Copy the 5 at "o" down aligning to the place


We think number at " 0 " is 25 . We write 6 right side of the 1 because 25 include six 4.

There are $4 \times 6=24$ sets of (1), so we write 24 with aligning the place.
 how to check the answer in division.


If the total of left hand side becomes 65, then the answer of division is correct.


We can check the answer in division without remainder by calculating (Numbers in each group) $\times$ (number of the groups) $=($ total numbers $)$.

Let's check the answer after you find the answer of the division.

Example Divide. Check the answer.


Exercise Divide. Check the answer.
(1) $47 \div 3=$ $\square$ $R$ $\square$ (2) $71 \div 5=\square R$ $\square$

[check]
[check]

$$
3 \times \square+\square=47
$$

$$
5 \times \square+\square=71
$$

Exercise Divide. Check the answer.
(3) $53 \div 3=$ $\square$ $R$ $\square$ (4) $69 \div 5=$ $\square$ $R$

[check]

$$
3 \times \square+\square=53
$$


[check]

(5) $94 \div 4=$ $\square$ $R$

[check]

(6) $73 \div 2=$ $\square$ $R$

[check]

$$
2 \times \square+\square=73
$$

Example Divide.
$65 \div 4=\square R \square 65 \div 4=16 R(1$


Exercise Divide.


Exercise Divide.


Exercise Divide.


Exercise Divide.


Exercise Divide and write "-".


Exercise Divide and write "-"





## $35 \div 8$


If we cant divide
at " t ", let's think
including at " o ".





Example Divide.
Don't forget to write remainder !!
$61 \div 3=\square 61 \div 3=20 R 1$


Exercise Divide.


Exercise Divide.

(8) $65 \div 7=\square$




Example Divide.
Don' t forget to write remainder !!
$61 \div 3=\square 61 \div 3=20 \mathrm{R} 1$

| t | 0 |
| :---: | :---: |
|  |  |
|  | 6 |
|  |  |
|  |  |



Exercise Divide.


Exercise Divide.
(5) $93 \div 3=\square$
(6) $41 \div 5=\square$

(9) $80 \div 8=\square$ (10) $92 \div 3=\square$


## Exercise Divide and write "-".

Don't forget to write remainder !!
$61 \div 3=\square$ $61 \div 3=20 R 1$


Good!
Exercise Divide and write "-".


Exercise Divide.



(10) $41 \div 2=$


Let's think how to calculate $324 \div 2$.


(10) (10)
(1) (1)
(1) (1)

324 has 3 sets of 100,2 sets of (10) and 4 sets of (1).


Calculate in each decimal place.


## We divide set of 100 into set of 10 .

$324 \div 2=1$

$\sqrt{\text { Divide numbers of (10) into } 2 .}$

## $324 \div 2=16$



Set of (10) is $12 \div$ $2=6$.

## Divide number of (1) into 2.

## $324 \div 2=162$



Set of (1) is $4 \div 2=2$
The answer is 162.

## $" o "$ means $\square, " t "$ calculate $324 \div 2$.

$$
324 \div 2
$$

We start calculate at largest digit.



## " o " means $\square$

$$
324 \div 2
$$

$$
324 \div 2
$$

Find the answer at "o".

Multiply the
number of divisor
and the answer at "o".


Subtract
numbers at " 0 ".

## $324 \div 2$



We subtract 4 from 4, 0 is left.


We can apply same method to calculate.

$324 \div 2=162$



## $\sqrt{\text { Let's go on calculation. }}$

## $641 \div 3$



Find the answer at " t ".

Multiply the number
of divisor and the answer at " t ".


Copy the 4 at " t " down aligning to the place.

We write 1 right side of the 2 because 4 include one 3.


There are $3 \times 1=3$ sets of (10), so we write 3 with aligning the place.


## "o" means go on calculation.

$$
641 \div 3
$$



$$
645 \div 3
$$

## Subtract <br> numbers at " 0 ".



We subtract 9 from 11,2 is left. The remainder is 2 .

Example Divide.
$641 \div 3=213 R 2$


Exercise Divide.
(1) $464 \div 4=$



Exercise Divide.
(3) $928 \div 4=\square$

(5) $789 \div 3=\square$

| h | $t$ | $\bigcirc$ |
| :---: | :---: | :---: |
|  |  |  |
| $3 \longdiv { 7 }$ | 8 | 9 |
| - |  |  |
| - |  |  |
| - |  |  |
|  |  |  |


(4) $989 \div 7=$


Exercise Divide.

(7) $753 \div 3=\square$

(9) $632 \div 4=\square$

(10) $506 \div 3=\square$

Example Divide.
$641 \div 3=213 R 2$

Don' t forget to write the remainder !!


Good!


Exercise Divide.
(1) $414 \div 3=$


Exercise Divide.
(3) $780 \div 4=\square$



(4) $583 \div 5=\square$

(6) $890 \div 8=$


Exercise Divide and write "-".
$641 \div 3=213$ R 2


Exercise Divide and write "-".
(1) $524 \div 4=$


Exercise Divide.
(3) $552 \div 4=\square$
(4) $500 \div 3=\square$

(5) $516 \div 3=\square$

(6) $736 \div 6=\square$



## " o " means

$$
542 \div 3
$$



Copy the 4 at " t " down aligning to the place .

## We write 8 right side of

the 1 because 24
include eight 3.

There are $3 \times 8=24$ sets of (10), so we write 24 with aligning the place.
 24

## " o " means

## $542 \div 3$



## $542 \div 3$

Find the
answer at "o".


We write 0 right side of the 8 because 2 include no 3 . The remainder is 2 .

$542 \div 3=180 \quad R \quad 2$



## Let's go on calculation.



Let's go on calculation.

## $825 \div 4$

 Multiply the
$\begin{aligned} & \text { number of } \\ & \text { divisor and the } \\ & \text { answer at "o". }\end{aligned}$

## "o" means $\square$

## $825 \div 4$

Subtract
numbers at " 0 ".


Example Divide.
$8 2 5 \div 4 = 2 0 6 R 1 1 4 \longdiv { 8 2 5 }$

Don' t forget to write the remainder !!


Exercise Divide.
(1) $812 \div 3=\square$
(2) $758 \div 7=\square$

(3) $482 \div 4=\square$

(4) $870 \div 8=\square$


## Exercise Divide.


(7) $725 \div 6=$


| $h$ | t | 0 |
| :--- | :--- | :--- |

$5 \longdiv { 5 5 3 }$


Example Divide.
$825 \div 4=206 R 1$

Don' t forget to write the remainder !!

Exercise Divide.



Good!


Example Divide.

Don' t forget to write the remainder !!
$\begin{aligned} & \text { Don't } \\ & \text { forget ! }\end{aligned}-\frac{-}{25} \begin{array}{r}25 \\ 1\end{array}$
Exercise Divide.


Good!
(2) $435 \div 4=\square$



(4) $716 \div 7=\square$


# $239 \div 4$ 



|  |  | $t$ | $t$ |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  | 2 | 3 | 9 |
|  |  |  |  |


numbers ate " h ".

We think the answer at " t ", because 2 include no 4.

We write 5 right side of the 1 because 23 include four 5 .

There are $4 \times 5=20$ sets of (10), so we write 20 with aligning the place.


## $239 \div 4$



Example Divide.

Exercise Divide.
(1) $214 \div 6=$


(2) $168 \div 6=\square$



(4) $267 \div 3=\square$


## Exercise Divide.


(9) $540 \div 9=\square$

(10) $194 \div 3=$

| $\mathbf{h}$ | $\mathbf{t}$ | $\mathbf{o}$ |
| :--- | :--- | :--- |

$3 \longdiv { 1 9 4 }$

Example Divide.
$239 \div 4=59 R 3$


Exercise Divide.
(1) $508 \div 8=\square$
(2) $429 \div 5=\square$

(3) $638 \div 9=$


Example Divide.
$239 \div 4=\begin{array}{lll}59 & R & 3\end{array} 4 \sqrt{2} 9$

Don't forget to write remainder !!

Exercise Divide.
(1) $587 \div 7=$

(2) $236 \div 8=\square$

(3) $197 \div 2=\square$

(4) $329 \div 4=\square$


# $90 \div 30=\square$ 

(10) (10) (10)
(10) (10) (10)
(10) (10) (10)

90 is made of 9 sets of 10 .


There are 3 sets of 30 in 90.

## Let's compare $90 \div 3$ and $9 \div 3$.

$$
\begin{aligned}
& 90 \div 30=3 \\
& 9 \div 3=3
\end{aligned}
$$

A division with 0 in both dividend and divisor are the same as one without 0.

Example Divide.
$90 \div 30=3$ Good!

Exercise Divide.

(9) $320 \div 80=\square$
(10) $180 \div 90=$
(11) $300 \div 30=\square$
(12) $240 \div 60=$
(3) $200 \div 50=\square$
(44) $160 \div 80=$
(15) $150 \div 30=\square$ (16) $350 \div 70=$

## Let's find an effective way of calculating $110 \div 30$.

## $110 \div 30=\square$ 110 is made of 11 sets of (10). <br> (10) (10) (10) <br> (10) (10) (10) (10) <br> (10) (10) (10) (10) <br> 

(25) How many sets of 30 is there in 110 .

## $110 \div 30=\begin{array}{lll}3 & R & 20\end{array}$ \& Good:

| (10) | (10) | (10) | (10) |
| :---: | :---: | :---: | :---: |

There are 3 sets of 30 in 110. The remainder is 20 .

Let's compare $110 \div 3$ and $11 \div 3$.

$$
\begin{aligned}
& 110 \div 30=3 R 2 \\
& 11 \div 3=3 R 2
\end{aligned}
$$

A division with 0 in both dividend and divisor are the same as one without 0 .

Example Divide.
$110 \div 30=\begin{array}{lll}3 & R & 20\end{array} \bigotimes_{G 00 d!}$

Exercise Divide.
(1) $150 \div 60=$
(2) $200 \div 80=$
(3) $140 \div 40=$
(4) $110 \div 50=$
(5) $410 \div 90=$
(6) $250 \div 30=$
(7) $220 \div 50=$
(8) $200 \div 70=\square$

Let's divide this. When we divide by a bigger number than 10, it is better to think the divisor as easy number. (Think "o" of the divisor as 0.)
 how to check the answer in division.


If the total of left hand side becomes 65, then the answer of division is correct.


We can check the answer in division without remainder by calculating (Numbers in each group) $\times$ (number of the groups) $=($ total numbers $)$.

Let's check the answer after you find the answer of the division.

## Example Divide. Check the answer.


[check]
$31 \times \square=65 \quad 31 \times 2+2=65$
[check]

Exercise
Divide. Check the answer.
(1) $98 \div 32=\square \mathcal{R} \square$

(2) $83 \div 39=\square \mathcal{R} \square$

| $t$ | 0 |
| :---: | :---: |
| $29: 8$ | 8 |
|  |  |
|  |  |
|  |  |
|  |  |

[check]
$39 \times \square+\square=83$

Exercise Divide. Check the answer.
(3) $49 \div 12=\square \mathcal{R} \square$
(4) $72 \div 19=\square R \square$

[check]


$72 \div 20$
[check]
$19 \times \square+\square=72$
(5) $86 \div 43=\square R \square$
(6) $92 \div 28=\square R \square$
[check]
[check]
$43 \times \square+\square=86$

Exercise Divide.


Exercise Divide.


## Example Divide.



Exercise Divide.


| $3 4 \longdiv { 7 }$ |
| :--- |



Exercise Divide and write "-".


Exercise Divide and write "_"


## " 0 " means

Let's divide this.


Multiply the number of divisor and the answer.

Subtract 1 from the answer.


The subtrahends is 3 sets of 34, so it's 102. We can't subtract 102 from 92.

$$
3 4 \longdiv { 9 , 2 }
$$

When subtrahend is larger, subtract 1 from the answer.


## "o" means $\square$

$$
92 \div 34
$$

Multiply the $\underbrace{\begin{array}{l}\text { number of divisor } \\ \text { and the answer. }\end{array}}$


Subtract the numbers.

$$
92 \div 34=2 \quad R \quad 24
$$

## " o " means $\square$, " t " means $\triangle$, " h " means <br> $\square$



$$
62 \div 14
$$

Multiply the
number of divisor
and the answer.


Subtract the numbers.

$$
62 \div 14=4 R 6
$$

If we subtract 56 from 62, the answer is 6.6 include no 14 , so it is the remainder.

## $73 \div 18$

Find the answer.


If we think $73 \div 18$ as $73 \div 20$, the answer is
$73 \div 20=3 R 13$. So, we can put 3 in $73 \div 18$.

The subtrahends is 3 sets of 18, so it's $54.73-54=19.19$ still include 18.


## $73 \div 18$



The subtrahends is 4 sets of 18, so it's 72 . We write it with aligning the place.

If we subtract 72 from 73, the answer is 1.1 include no 18 , so it is the remainder.

Good!

Example Divide.



Exercise Divide.


Exercise Divide.


Exercise Divide and write " - ".
$92 \div 34=\square R \square 92 \div 34=\square R(24$

|  | t | o |
| :--- | :--- | :--- |
| 34 |  |  |
|  | 9 | 2 |
|  |  |  |
|  |  |  |



Exercise Divide and write "-"

## forget !!



Let's divide this. When we divide by a bigger number than 100, it is better to think the divisor as easy number.
(Think " 0 " of the divisor as 0 .)

$$
135 \div 32
$$





If we think $135 \div 32$ as 135
$\div 30$, the answer is $135 \div 30$
$=4$ R 15. So, we can put 4 in $135 \div 32$.


The subtrahends is 4 sets of 32 , so $32 \times 4=128$. We write it with aligning the place.

If we subtract 128 from 135 , the answer is 7 . So it is the remainder.

$$
135 \div 128=4 \quad R \quad 7
$$

$$
257 \div 34
$$



Subtract 1 from the answer.

If we think $257 \div 34$ as $257 \div 30$, the answer is $257 \div 30=8$ R 17. So, we can put 8 in $257 \div 34$.

The subtrahends is 8 sets of 34 , so $34 \times 8=272$. We can't subtract 272 from 257.


$$
\text { We cancel } 8 \text { and write } 7 .
$$



Example Divide.
$135 \div 32=427 \sqrt{4 R 7}$

Don' t forget to write the remainder.

$-128$

Exercise Divide.

(3) $279 \div 31=$ $\square$ (4) $154 \div 22=$

| $h$ | $t$ | $o$ |
| :---: | :---: | :---: |
|  |  |  |
|  | 2 | 7 |




Exercise Divide.


Exercise Divide.


Exercise Divide.

(4) $176 \div 44=$



Exercise Divide.


(9) $313 \div 45=$ (10) $135 \div 43=\square$

| h | t | 0 |
| :---: | :---: | :---: |
| $4 5 \longdiv { 3 }$ | 1 | 3 |



Example Divide.


Exercise Divide.

(4) $558 \div 62=$



Exercise Divide.

(9) $280 \div 47=\square$ (10) $345 \div 43=\square$


## Let's divide this.

## $278 \div 12$

 Find the answer.\section*{| Multiply the |
| :---: | :---: | <br> number of divisor and the answer .}




27 includes two 12 . We write 2 below 12.

The subtrahends is 2 sets of 12 , so it's 24 . We write it below 27.

When we subtract 24
from 25 , the answer is 3 .

We write 8 with aligning the place.

## Let's divide this.

$$
278 \div 12
$$

Find the answer.

## Multiply the

number of divisor
and the answer.

Subtract numbers.


38 includes three sets of 12 .

The subtrahends is 3 sets of 12 , so $12 \times 3=36$. We write it with aligning the place.

If we subtract 36 from 38, the answer is 2 . So it is the remainder.


Exercise Divide.
(1) $385 \div 12=$

| h | t | 0 |
| :---: | :---: | :---: |
|  |  |  |
| $1 2 \longdiv { 3 }$ | 8 | 5 |
| - |  |  |
|  |  |  |




$1 3 \longdiv { 4 8 6 }$


Exercise Divide.

$5 1 \longdiv { 6 7 8 }$

$-1$


$278 \div 12=\begin{array}{lll}23 & R & 2\end{array}$


Exercise Divide.
(1) $639 \div 14=$



Don't forget to write remainder. r.
$\qquad$



Exercise Divide.




Exercise Divide.

Don' t forget to write the remainder.

Do not forget!!

|  | $t$ | 0 |
| :---: | :---: | :---: |
| 12 | 2 | 7 |
|  | 2 | 4 |
|  | 3 | 8 |
|  | 3 | 6 |
|  | 2 |  |

Exercise Divide.



## Exercise Divide.




|  |
| :---: |
|  |  |
|  |  |



Let's go on calculation.

## $4532 \div 36$

Multiply the
number of divisor and the answer .

| 36 | 4 | 5 | 2 |
| :--- | :--- | :--- | :--- |
| - | 3 |  |  |
|  | 9 | 3 |  |
|  |  |  |  |

72

The subtrahends is 2 sets of 36 , so $36 \times 2=$ 72. We write it with aligning the place.



If we think $212 \div 36$ as $212 \div 40$, the answer is $212 \div 40=5 \mathrm{R}$ 12 . So, we can write 5 right side of the 2 .

Multiply the
number of divisor and the answer.

"o" means $\square$, "t" means $\triangle$, " h " means $\square$, "th" means $\square . \mathrm{T}^{\text {T27_S13 }}$


Exercise Divide.
(1) $6522 \div 27=\square$ (2) $3662 \div 57=$



Exercise Divide.

(5) $1456 \div 34=$ (6) $8027 \div 98=\square$



Exercise Divide.

(9) $5934 \div 76=\square$ (10) $9245 \div 38=\square$


" o " means $\square$, "t" means $\triangle$, " h " means $\square$, "th" means $\square$. T27_S13


Exercise Divide.
(1) $3411 \div 14=\square$
(2) $6156 \div 83=$


## Exercise Divide.

(3) $2952 \div 67=\square$
(4) $4789 \div 43=$

(5) $5220 \div 36=$
(6) $1233 \div 13=$


"o" means $\square$, "t" means $\triangle$, " h " means $\square$, "th" means $\square . \mathrm{T}^{\text {T27_S13 }}$


Exercise Divide.
(1) $5842 \div 34=$
(2) $4451 \div 48=$

| th | h | t | 0 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $3 4 \longdiv { 5 }$ | 8 | 4 | 2 |
| - |  |  |  |
| - |  |  |  |
|  |  |  |  |


| th $\mathrm{h} \mid \mathrm{t}$ - $\mathbf{o}$ |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 484 | 4 | 5 | 1 |
| - |  |  |  |
| - |  |  |  |
|  |  |  |  |

## Exercise Divide.

(3) $7674 \div 42=\square$
(4) $2158 \div 26=\square$


(5) $8014 \div 13=$
(6) $3021 \div 73=\square$




"o" means $\bigcirc$, "t" means $X$, "h" means $O$, "th" means $\square$. T27_S14 $^{\square}$




"o" means $\square$, "t" means $\triangle$, " h " means $\square$, "th" means $\square . \mathrm{T}^{\text {T27_S14 }}$
Example Divide.



Exercise Divide.


Exercise Divide.

" o " means $\square$, "t" means $\triangle$, " h " means $\square$, "th" means $\square$. T27_S14
Example Divide.
$2013 \div 19=15 R 18$

| th ${ }^{\text {h }}$ ! ${ }^{\text {t }}$ |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 20 | 1 | 3 |
|  | 19 |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Exercise Divide.
$1 7 \longdiv { 1 0 5 }$

(3) $4568 \div 22=$
(4) $2538 \div 36=$

| th | $\mathbf{h}$ | $\mathbf{t}$ | $\mathbf{o}$ |
| :--- | :--- | :--- | :--- |

## Exercise Divide.


(9) $7453 \div 37=\square$
(10) $2048 \div 51=\square$

"o" means $\square$, "t" means $X$, "h" means $O$, "th" means $\square$. T27_S14


Exercise Divide.

(3) $6632 \div 63=$


## Exercise Divide.


(9) $3378 \div 33=$

| th | h | t | 0 |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  | 7 |

$3 3 \longdiv { 3 , 7 8 }$
$4 8 \longdiv { 1 9 3 7 }$

Let's divide the following questions.

$$
\begin{array}{r}
3 \div 1=\square \\
12 \div 4=\square \\
120 \div 40=\square
\end{array}
$$



$$
3 \div 1=3
$$

All of the three

$$
12 \div 4=3
$$

answers are the same.

$$
120 \div 40=3
$$



Next, let's compare the three questions after changing the order.

$$
\begin{gathered}
120 \div 40=3 \\
\sqrt{\div 10} \\
12 \div \square \\
\div \square \\
3 \div \square \\
3 \div \\
\hline \square \\
\hline
\end{gathered}
$$




Same answers
$3 \div 1=34$

$12 \div 4=3$


$$
120 \div 40=3
$$

## $120 \div 40=3$

 $\div 10$ $12 \div 4=$

You can get the same answer even if you multiply the same number both the dividend and the divisor.


Let's calculate this using the rule of division.

## $3200 \div 80$

The rule of division is that we can get the same answer even if we multiply (or divide by) the same number both the dividend and the divisor.


## $3200 \div 80$ $\sqrt{\div 10} \sqrt{\div 10}$ <br>  <br> Same <br> Answers <br> $320 \div$ <br> 8

Same
Answers

If you divide both 3200 and 80 by 10 of $3200 \div 80$ which is $320 \div 8$, you get the same answer, 40 .
$3200 \div 80$


$3400 \div 800$



First, we simplify both sides.


34 include four 8.


Four sets of 8, so it's
32.


$$
3400 \div 800=\frac{4^{4} 2 \mathbf{R O}}{}
$$ how to check the answer in division.



If the total of left hand side becomes 3400 , then the answer of division is correct.


If we check the answer by using 2 as remainder, $800 \times 4+2=32$ 02 . This is not same as 3400 . So we add same numbers of 0 which we simplify for remainder.


Example Divide. Check the answer.
$3400 \div 800=4 R 200$
$8 Q Q 34 Q Q$
$-32$


Exercise Divide. Check the answer.
(1) $3800 \div 900=\square \mathcal{R}$

[check]

(22700 $\div 600=\square R$


[check]


Exercise Divide. Check the answer.
(3) $5800 \div 1200=\square R$

[check]
$1200 \times \square+\square=5800$

$7 0 0 \longdiv { 3 0 0 0 }$
[check]
$700 \times \square+\square=36000$
(5) $23000 \div 400=\square \mathcal{R}$
$4 0 0 \longdiv { 2 0 0 0 }$
[check]


Exercise Divide and write "-".

(1) $2700 \div 500=$ $\square$ $R$ $\square$

(2) $3100 \div 600=$ $\square$ $R$ $\square$


Exercise Divide and write "-".

There are 50 onions in a bag. I give 23 onions to and 15 onions to . Let's find out the number of onions left.


[50-23-15 $=12$

We can find it by adding the number of onions given to and and subtract from 50 . When we write this in a number sentence, we use ( ).

$$
50-(23+15)
$$

This number sentence shows that we add 23 and 15 which we gave them first and subtract it from 50 onions.

Let's find out how to calculate it. We calculate inside ( ) first.

$$
50-(23+15)=50-
$$

$$
50-(23+15)=50-38
$$

The we just subtract.


$$
\begin{aligned}
50-(23+15) & =50-38 \\
& =12
\end{aligned}
$$



Good!
If we calculate in the wrong order, we will get the wrong answer.

Example Evaluate.

$$
\begin{aligned}
50-(23+15) & =50-38 \\
& =\underset{\text { Good }}{12} \text { \& }
\end{aligned}
$$

Exercise Evaluate.
(1) $80-(24+15)=80-$

(2) $\begin{aligned} 100-(18+32) & =100-\square \\ & =\square\end{aligned}$
(3) $40+(72-50)=40+$

(4) $\begin{aligned} 20+(96-30) & =20+\square \\ & =\square\end{aligned}$

Example Evaluate.

$$
50-(23+15)=
$$



$50-(23+15)=50-38$

$=12$

Exercise Evaluate.
(1) $70-(22+13)=$

(2) $60+(38-13)=\square$

(3) $\begin{aligned} 80+(48-20) & =\square \\ & =\square\end{aligned}$

There are 12 tomatoes in each bag. If I give 6 bags to (3) and 9 bags to . How many tomatoes do I need?


## Let's find out how to calculate it. We calculate inside ( ) first.

$$
12 \times(6+9)=12 \times
$$

## $12 \times(6+9)=12 \times 15$

Then, we just subtract.
(C) Good!

$$
12 \times(6+9)=12 \times 15
$$

$$
=180
$$

If we calculate in the wrong order, we will get the wrong answer.

## We put 96 bottles of juice into cases evenly.

 How many cases do we need?

## $6 \times 4 \Rightarrow 24$ <br> $96 \div 24$

We can combine the two number sentences into one by using ( ).

$$
96 \div(6 \times 4)
$$

Let's find out how to calculate it. We calculate inside ( ) first.

$$
96 \div(6 \times 4)=96 \div
$$

$$
96 \div(6 \times 4)=96 \div 24
$$

Then, we just subtract.

## $96 \div(6 \times 4)=96 \div 24$ <br>  <br> Good!

If we calculate in the wrong order, we will get the wrong answer.

Example Evaluate.

# $12 \times(6+9)=12 \times 15$ 

$=180$
\&@) Good!
$96 \div(6 \times 4)=96 \div 24$


Exercise Evaluate.
(1) $25 \times(7+13)=25 \times$

(2) $34 \times(28-8)=34 \times$

(3) $72 \div(2 \times 4)=72 \div$
$=\square$

Exercise Write the answer in the $\square$.
(4) $30 \times(18-8)=30 \times$

(5) $\begin{aligned}(6+14) \times 8 & =\square \times 8 \\ & =\square\end{aligned}$
(6) $\begin{aligned} 36 \div(3 \times 2) & =36 \div \square \\ & =\square\end{aligned}$
$\begin{aligned}(7) 20 \times(30 \div 6) & =20 \times \square \\ & =\square\end{aligned}$
(8) $25 \times(8 \div 4)=25 \times$

Example Evaluate.

$$
12 \times(6+9)=
$$




# $$
12 \times(6+9)=12 \times 15
$$ <br> Good! <br>  <br> $$
180
$$ <br> $=180$ 

Exercise Evaluate.
(4) $\begin{aligned} 25 \times(16-12) & =\square \\ & =\square\end{aligned}$
(5) $(3+17) \times 9=$

(6) $48 \div(2 \times 4)=$

(7) $40 \times(12 \div 3)=\square$
$=\square$
(8) $\begin{aligned} 22 \times(10 \div 5) & =\square \\ & =\square\end{aligned}$

There are 100 eggs and we share them with three members. If each of them has 15 eggs, how many eggs are left?


If we use ( ), we can calculate by adding the number of eggs give to the three first and subtracting them from 100.


## $100-(15+15+15)=[55$

## We can calculate by multiplication because

 the number of eggs given are the same.
## $100-(15+15+15) \quad 100-15 \times 3$

Let's find how to calculate it. In a number sentence with mixed operations, we calculate multiplication and division first even if there is not ( ).

$$
100-15 \times 3=100-
$$

## $100-15 \times 3=100-45$

Then, we just subtract.

$$
\begin{aligned}
100-15 \times 3 & =100-45 \\
& =55
\end{aligned}
$$

If we calculate in the wrong order, we will get the wrong answer.


Let's find out how to calculate it. We calculate division first.

$$
13+36 \div 2=13+
$$

# $13+36 \div 2=13+18$ 

Then, we just add.

## $13+36 \div 2=13+18$ $=31$ GQ)

If we calculate in the wrong order, we will get the wrong answer.

Example Write the answer in the $\square$.

$$
\begin{aligned}
100-15 \times 3 & =100-45 \\
& =55 \\
13+36 \div 2 & =13+18 \\
& =31
\end{aligned}
$$

Exercise Write the answer in the $\square$
(1) $\begin{aligned} 200-20 \times 5 & =200-\square \\ & =\square\end{aligned}$
(2) $\begin{aligned} 10+48 \div 8 & =10+\square \\ & =\square\end{aligned}$
(3) $18+8 \times 9=18+$

$$
=\square
$$

Exercise Write the answer in the
$\square$
(4) $\begin{aligned} 38-40 \div 5 & =38-\square \\ & =\square\end{aligned}$
(5) $\begin{aligned} 32-3 \times 4 & =32-\square \\ & =\square\end{aligned}$
(6) $\begin{aligned} 15+35 \div 7 & =15+\square \\ & =\square\end{aligned}$
$\begin{aligned}(7) 23+3 \times 4 & =23+\square \\ & =\square\end{aligned}$
$\begin{aligned} \text { (8) } 66-42 \div 7 & =66-\square \\ & =\square\end{aligned}$

Example Evaluate.
$100-15 \times 3=$

$\checkmark$
$100-15 \times 3=100-45$ Good!

工

## 55

Exercise Evaluate.
(1) $50-9 \times 5=$

$$
=\square
$$

(2) $20+81 \div 9=\square$
$=\square$
(3) $\begin{aligned} 24+6 \times 6 & =\square \\ & =\square\end{aligned}$

## Exercise Evaluate.

(4) $\begin{aligned} 27-42 \div 6 & =\square \\ & =\square\end{aligned}$
(5) $50-5 \times 5=\square$ $=\square$
(6) $\begin{aligned} 28+21 \div 3 & =\square \\ & =\square\end{aligned}$
$(7) 27+6 \times 2=\square$

(8) $\begin{aligned} 88-32 \div 4 & =\square \\ & =\square\end{aligned}$

## Let's evaluate the following questions.

## (1) $3 \times 6-4 \div 2$ <br> (2) $3 \times(6-4) \div 2$ <br> (3) $3 \times(6-4 \div 2)$

##  <br> $\square$

In a number sentence with a mixed operations, we calculate multiplication and division first.

$\llcorner$

$=16$

## Let's evaluate the following questions.

$$
\begin{array}{ll}
\text { (1) } 3 \times 6-4 \div 2 & \text { (2) } 3 \times(6-4) \div 2 \\
\text { (3) } 3 \times(6-4 \div 2) &
\end{array}
$$

(2) $3 \times(6-4) \div 2=3 \times \square \div 2$


If there is ( ), we calculate inside the ( ) first.


## Let's evaluate the following questions.

## (1) $3 \times 6-4 \div 2$ <br> (2) $3 \times(6-4) \div 2$ <br> (3) $3 \times(6-4 \div 2)$

# (3) $3 \times(6-4 \div 2)=3 \times(6-$ 


$\square$


If there is ( ), we calculate inside the ( ) first. In the ( ), we calculate the division first.


## Example Write the answer in the $\square$.

$$
3 \times(6-4 \div 2)=3 \times(6-2)
$$

$$
=3 \times 4
$$



Exercise Write the answer in the $\square$.


Exercise Write the answer in the $\square$.

(5) $\begin{aligned} 20 \div(8-4) \times 7 & =20 \div \square \times 7 \\ & =\square \times 7 \\ & =\square\end{aligned}$
(6) $3 \times(2+6 \div 3)=3 \times(2+$

$\begin{aligned}(7)(4 \times 2+6) \div 2 & =(\square+6) \div 2 \\ & =\square \div 2 \\ & =\square\end{aligned}$

Example Evaluate.
$3 \times(6-4 \div 2)=$


Exercise Evaluate.
(1) $4 \times 9-12 \div 2=$

$=\square$

Exercise Evaluate.
(2) $\begin{aligned} 6 \times(9-3) \div 2 & =\square \\ & =\square \\ & =\square\end{aligned}$
(3) $7 \times(6-8 \div 2)=\square$

(4) $16 \div 2+7 \times 8=\square$

$=\square$
(5) $40 \div(7-2) \times 9=$

$$
\begin{aligned}
& =\square \\
& =\square
\end{aligned}
$$

## $4+5$ <br> $\square 5+4$ <br> $7 \times 8$ $8 \times 7$

$$
\begin{aligned}
& 4+5=5+4 \\
& 7 \times 8=8 \times 7
\end{aligned}
$$

$4+5=9 \quad 5+4=9$ The answers of the addition are the same.
$7 \times 8=56 \quad 8 \times 7=56 \quad$ The answers of the multiplication are the same.

There is a rule as the following in addition and multiplication.

We get the same answer even if we change the order of addition and multiplication If there is two numbers $a$ and $b$,

$$
\begin{array}{ll}
a+b=b+a & \text { (Addition) } \\
a \times b=b \times a & \text { (Multiplication) }
\end{array}
$$

We get the same answer with any $\mathbf{a}$ and $\mathbf{b}$.

## Let's fill in the $\square$ with $<,>$ or $=$.

# $(3+4)+6$ <br> $\square 3+(4+6)$ <br> $(2 \times 4) \times 5$ <br> $2 \times(4 \times 5)$ 

Calculate the both sides to find the answer.

## $(3+4)+6=3+(4+6)$ <br> $(2 \times 4) \times 5=2 \times(4 \times 5)$

$(3+4)+6=133+(4+6)=13$ The answers of the addition are the same. $(2 \times 4) \times 5=402 \times(4 \times 5)=40$ The answers of the multiplication are the same.

## There is a rule as the following in addition and multiplication.

## If there are only addition or multiplication in a

 number sentence, we get the same answer even if we change the order of calculation.If there are three numbers $\mathbf{a}, \mathrm{b}, \mathrm{c}$,
$(a+b)+c=a+(b+c)$ (addition)
$(a \times b) \times c=a \times(b \times c) \quad$ (multiplication)
We get the same answer with any $\mathbf{a}, \mathbf{b}$ and $\mathbf{c}$.

## Let's fill in the $\square$ with <,> or =.

$(9+2) \times 5 \square 9 \times 5+2 \times 5$
$(8-3) \times 5 \square 8 \times 5-3 \times 5$

Calculate the both sides to find the
answer.

## $(9+2) \times 5=9 \times 5+2 \times 5$ <br> $(8-3) \times 5=8 \times 5-3 \times 5$

$(9+2) \times 5=559 \times 5+2 \times 5=55$ The answers of the addition are the same. $(8-3) \times 5=258 \times 5-3 \times 5=25$ The answers of the subtraction are the same.

There are rules as the following in addition and multiplication, and subtraction and multiplication.

If there are addition and multiplication or subtraction and multiplication with bracket, we get the same answer even if we add (subtract) inside the bracket first, or multiply each a and b by c. If there are three numbers $a, b, c$,
$(a+b) \times c=a \times c+b \times c$ (addition and multiplication) $(a-b) \times c=a \times c-b \times c$ (subtraction and multiplication)

Example Write the answer in the $\square$ by using the rule of calculation.

$$
(9+2) \times 5=\square \times 5+\square \times 5
$$

$$
\sqrt{3}
$$

$$
(9+2) \times 5=9 \times 5+2 \times 5
$$

Exercise Write the answer in the $\square$
(1) $6+8=8+$
(2) $9 \times 7=\square \times 9$
(3) $(6+7)+3=\square+(7+3)$
(5) $(6+7) \times 5=6 \times$
$+7 \times$
(6) $(10+4) \times 6=10 \times 6+\square \times 6$
(7) $(12+6) \times 5=\square \times 5+6 \times 5$
(8) $(20-5) \times \square=20 \times 4-5 \times 4$

## $68+54+46$

We get the same answer even if we change the order of multiplication.

## $68+54+46=68+($ <br>  <br> $=68+$ <br> $=\square$

# $68+54+46=68+(54+46$ <br> $=68+100$ <br> $=168$ 

By changing the order of addition using ( ), we get 100 in the process. It is easy to calculate.

## Let's calculate this using the rules we've learnt.

$99 \times 4$
Let's change 99 to " $100-1$ " in the process of the calculation.

## $99 \times 4=(100-1) \times$

$=(100 \times \square)-(1 \times \square)$
$=\square-\square$
$=\square$
$99 \times 4=(100-1) \times$


$$
\begin{aligned}
& =(100 \times 4)-(1 \times 4) \\
& =400-4 \\
& =396<\theta_{\text {cood }}
\end{aligned}
$$

We can multiply both 100 and 1 by 4 before subtracting the two numbers each other.

## Let's calculate this using the rules we've learnt.

## $14 \times 8+26 \times 8$

## Let's bracket the number sentence. (use ( ) to combine the $14 \times 8$ and $26 \times 8$ )

## $14 \times 8+26 \times 8=(\square) \times 8$ <br> 

$14 \times 8+26 \times 8=(14+26) \times 8$
$=40 \times 8$
$=320$

We get 40 by using ( ). It is easy to calculate.

Example Write the answer in the $\square$
$68+54+46=68+(54+46)$

$$
=68+100
$$

$$
=168 \text { \&O}\}_{G o o d!}
$$

Exercise Write the answer in the $\square$
(1) $39+43+27=39+(\square)$

$$
\begin{aligned}
& =39+\square \\
& =\square
\end{aligned}
$$

(2) $99 \times 7=(100-1) \times$


Exercise Write the answer in the $\square$.

(5) $18 \times 8+32 \times 8=(\square) \times 8$


