



Let's find the answer of 21×3 .

$$21 \times 3 = \boxed{}$$

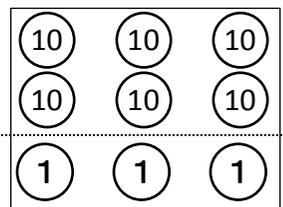
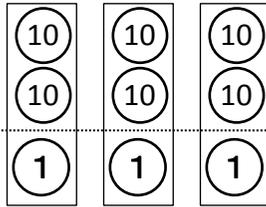
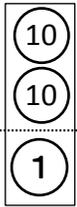
Multiplication of big numbers.



1) How many sets of (10) and (1) dose the number made of.

$$21 \times 3 = \boxed{}$$

$$21 \Rightarrow 21 \times 3 = \boxed{}$$



21 consists of
2 sets of (10)
and 1 (1).



The answer is
 $2 \times 3 = 6$ sets of (10)
and $1 \times 3 = 3$ (1).



$$21 \times 3 = \boxed{63}$$



Good!



1) Split 21 into two numbers.

$$21 \times 3 = \boxed{}$$

$$21 \times 3 \begin{cases} \boxed{20} \times 3 = \boxed{} \\ \boxed{1} \times 3 = \boxed{} \\ \hline \text{In total } \boxed{} \end{cases}$$

t	o
2	1

Split 21 into "t" and "o".

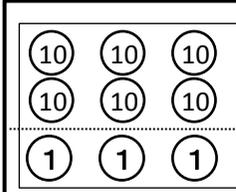


2) Split 23 into two numbers.

$$23 \times 3 \begin{cases} \boxed{20} \times 3 = \boxed{60} \\ \boxed{3} \times 3 = \boxed{9} \\ \hline \text{In total } \boxed{69} \end{cases}$$



$$21 \times 3 = \boxed{63}$$



Both the diagram and the number sentence calculate by their place values. We can calculate if we split them into the places.

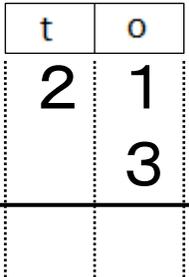




Let's multiply big numbers by vertical method.

$$21 \times 3$$

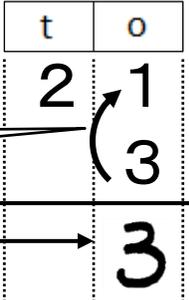
We write the numbers align to the right.



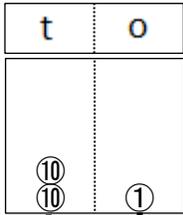
3, the number at the bottom is at "o", so we write it below the 1 of 21.



Start multiplying from the numbers at "o".



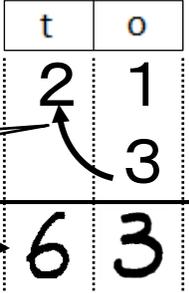
$$3 \times 1 = 3$$



The number at "o" means 3 by 3×1 , so we write 3 at "o".



Multiply the numbers at "t".



$$3 \times 2 = 6$$

The number at "t" is $3 \times 2 = 6$. So, we write 6 at "t".



21
× 3
3
+ 60
63

Multiply separately by their places and add the answers later.



Example Multiply.

$$21 \times 3$$

t	o
---	---



$$21 \times 3$$

t	o
---	---



$$63$$



Good!

Exercise Multiply.

① 12×2

t	o
---	---

② 13×3

t	o
---	---

③ 22×2

t	o
---	---

④ 23×3

t	o
---	---

⑤ 33×3

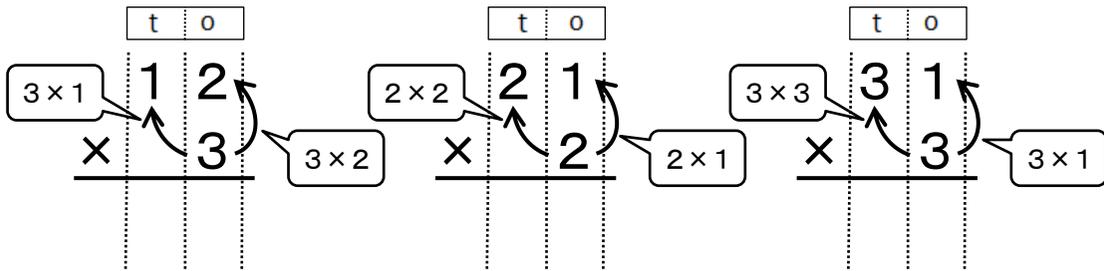
t	o
---	---

⑥ 41×2

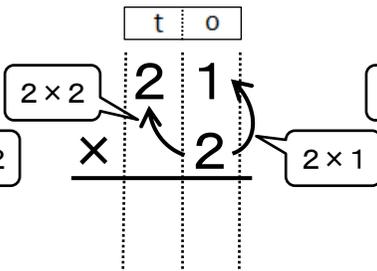
t	o
---	---

Exercise Multiply.

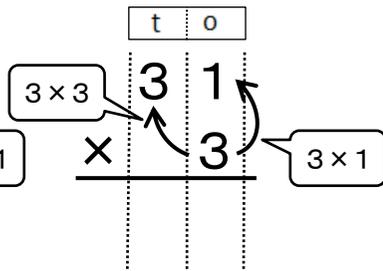
⑦ 12×3



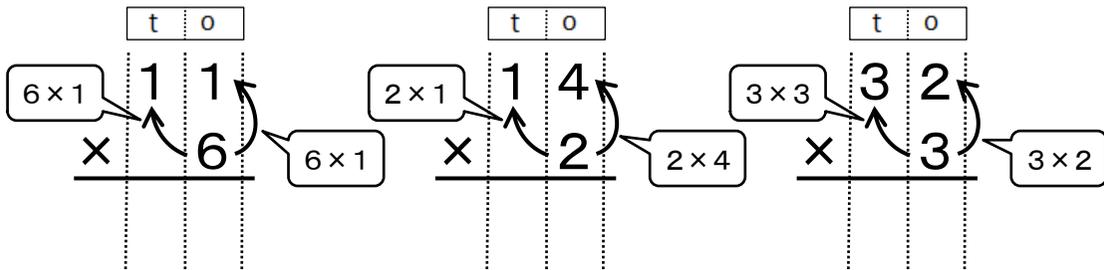
⑧ 21×2



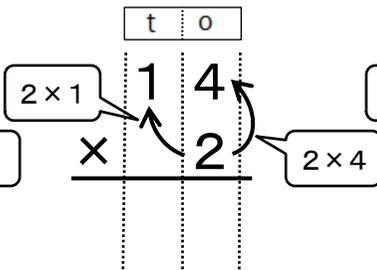
⑨ 31×3



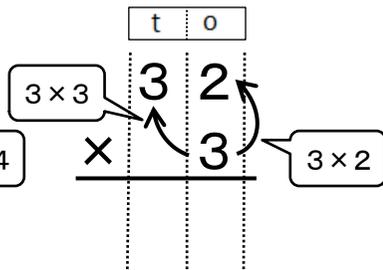
⑩ 11×6



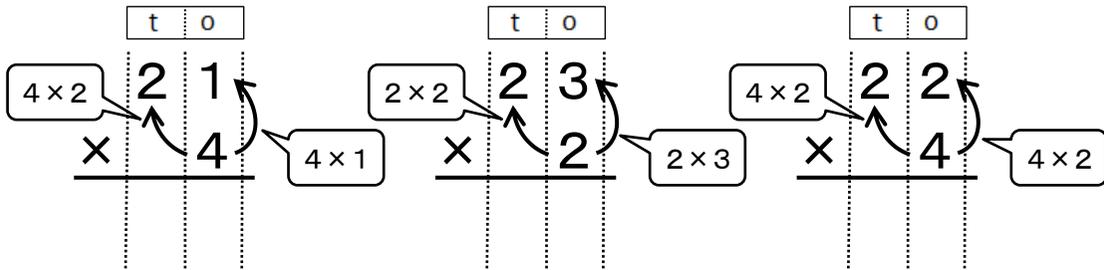
⑪ 14×2



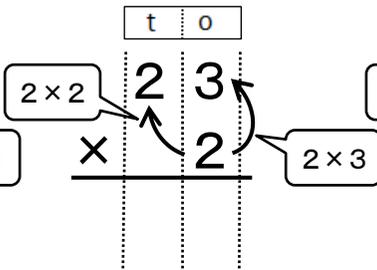
⑫ 32×3



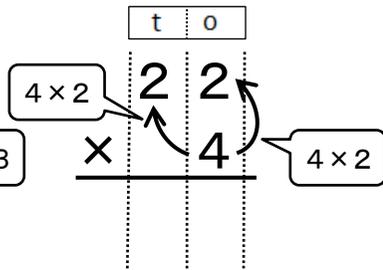
⑬ 21×4



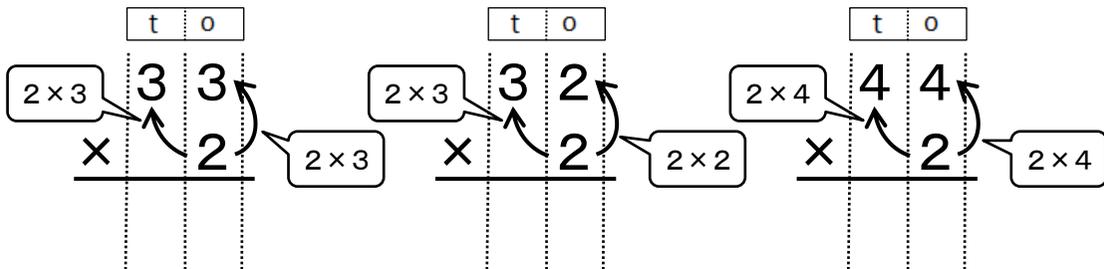
⑭ 23×2



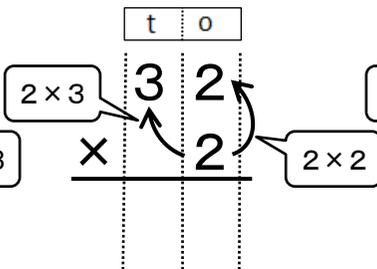
⑮ 22×4



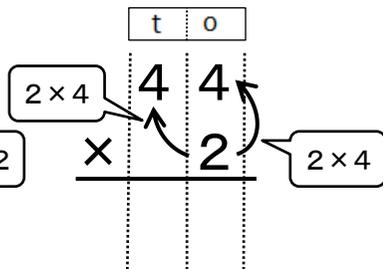
⑯ 33×2



⑰ 32×2



⑱ 44×2



Example Multiply.

$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 21 \\
 \times \quad 3 \\
 \hline
 \end{array}$$



$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 21 \\
 \times \quad 3 \\
 \hline
 63
 \end{array}$$


Good!

Exercise Multiply.

① 12×4

$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 12 \\
 \times \quad 4 \\
 \hline
 \end{array}$$

② 31×2

$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 31 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

③ 22×3

$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 22 \\
 \times \quad 3 \\
 \hline
 \end{array}$$

④ 43×2

$$\begin{array}{r}
 \begin{array}{|c|c|} \hline t & o \\ \hline \end{array} \\
 43 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

⑤ 42×2

$$\begin{array}{r}
 42 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

⑥ 34×2

$$\begin{array}{r}
 34 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

⑦ 13×2

$$\begin{array}{r}
 13 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

⑧ 24×2

$$\begin{array}{r}
 24 \\
 \times \quad 2 \\
 \hline
 \end{array}$$

Example

Multiply. Do not forget to write "×".

$$21 \times 3$$

	t	o
×	2	1



Do not forget!

$$21 \times 3$$

	t	o
×	2	1
	6	3



Good!

Exercise

Multiply. Do not forget to write "×".

① 13×3

② 12×4

③ 22×3

④ 32×2

	t	o
×	1	3
		3

	t	o
×	1	2
		4

	t	o
×	2	2
		3

	t	o
×	3	2
		2

⑤ 24×2

⑥ 31×3

⑦ 11×5

⑧ 43×2

	2	4
×		2

	3	1
×		3

	1	1
×		5

	4	3
×		2



Let's multiply big numbers by vertical multiplication.

$$26 \times 3$$

Start multiplying from the numbers at "o".

h	t	o
	2	6
×		3
<hr/>		
	1	8

$3 \times 6 = 18$

Multiplication at "o" is $3 \times 6 = 18$, so we write 8 at "o" and 1 at "t". Write the 1 small.



Multiply the numbers at "t".

h	t	o
	2	6
×		3
<hr/>		
	1	8

$3 \times 2 = 6$

$6 + 1 = 7$

Multiplication at "t" is $3 \times 2 = 6$, so we add 6 to the 1 which we write small.

Add the numbers at "t".



After you add cross out the small number.

h	t	o
	2	6
×		3
<hr/>		
	1	8
	7	

Write 7 at "t" because there are $6 + 1 = 7$ sets of 10 at "t".



If we write separately by places, we can find out the answers are $18 + 60$.

26
× 3
<hr/>
18
+ 60
<hr/>
78



Example Multiply.

$$26 \times 3$$

t	o
---	---



$$26 \times 3$$

t	o
---	---

Do not forget to add!



Exercise Multiply.

① 15×2

t	o
---	---

② 15×3

t	o
---	---

③ 14×4

t	o
---	---

④ 12×6

t	o
---	---

⑤ 13×7

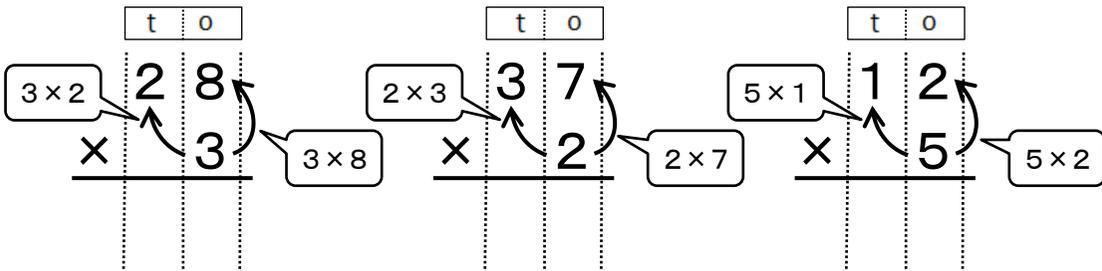
t	o
---	---

⑥ 28×2

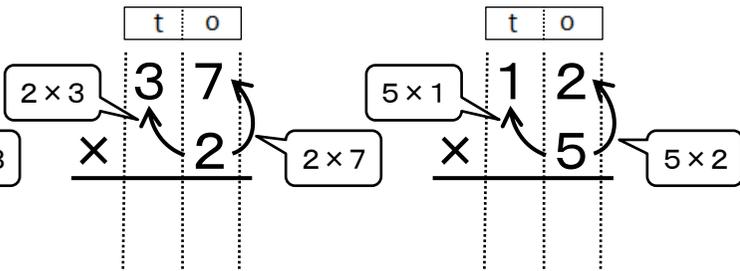
t	o
---	---

Exercise Multiply.

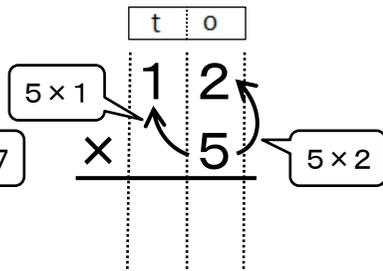
⑦ 28×3



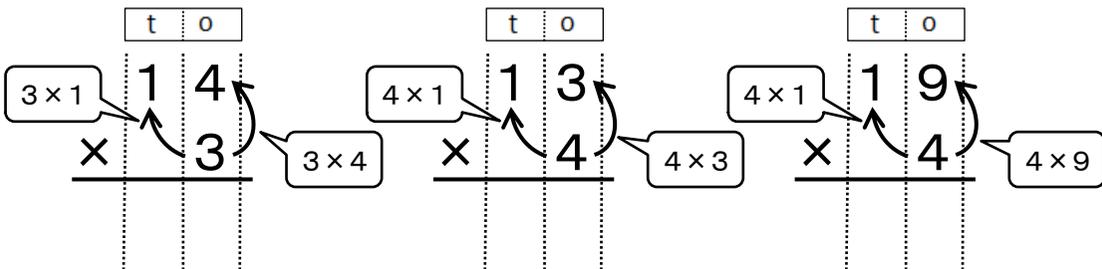
⑧ 37×2



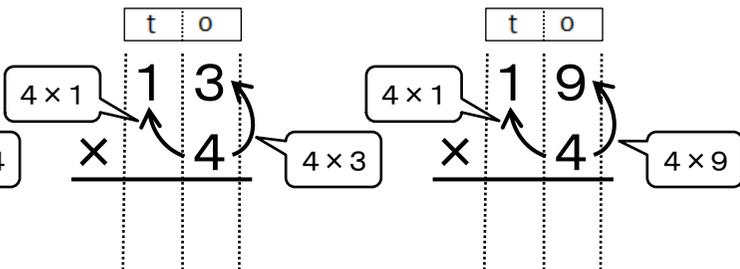
⑨ 12×5



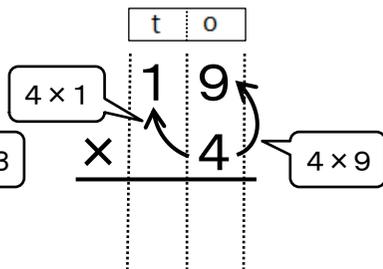
⑩ 14×3



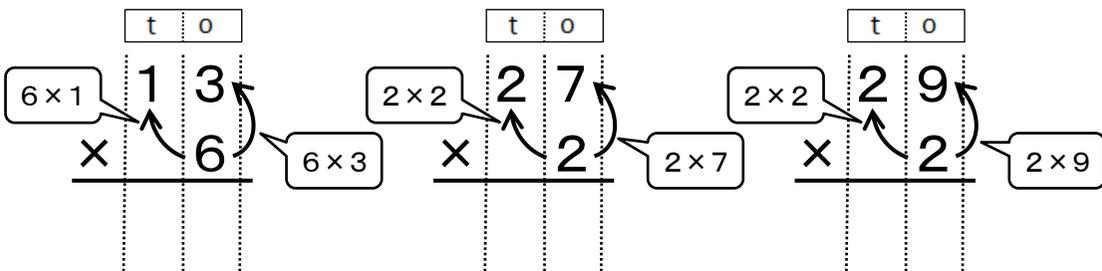
⑪ 13×4



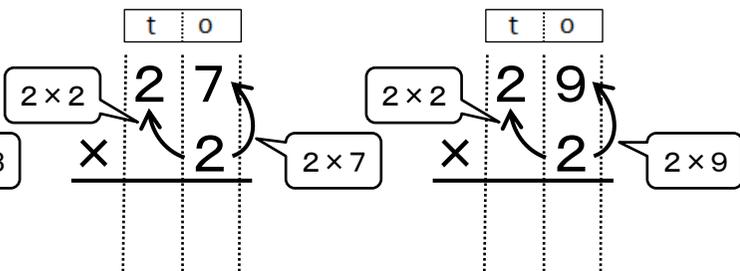
⑫ 19×4



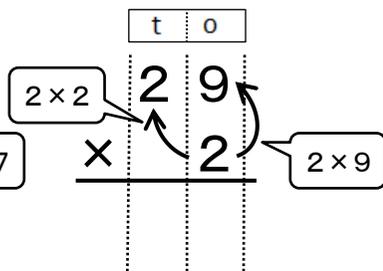
⑬ 13×6



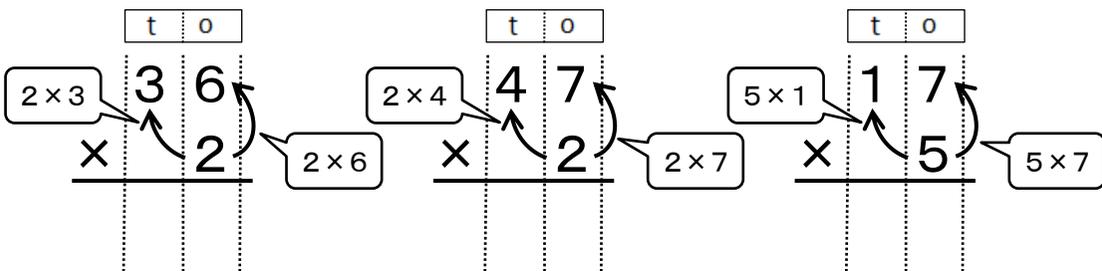
⑭ 27×2



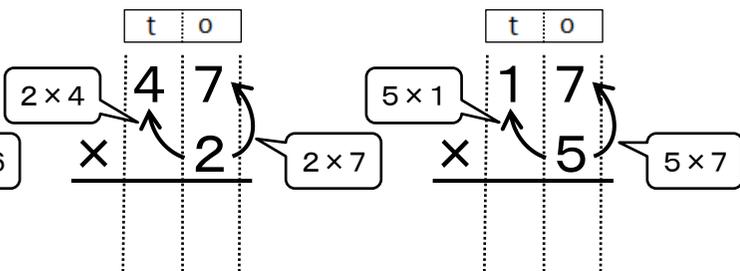
⑮ 29×2



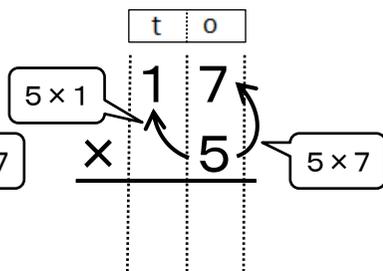
⑯ 36×2



⑰ 47×2



⑱ 17×5



Example Multiply.

$$26 \times 3$$

	t	o
2	6	
×		3



$$26 \times 3$$

	t	o
2	6	
×		3
7	8	

Do not forget to add!

Good!

Exercise Multiply.

① 16×2

	t	o
1	6	
×		2

② 19×3

	t	o
1	9	
×		3

③ 15×4

	t	o
1	5	
×		4

④ 14×6

	t	o
1	4	
×		6

⑤ 26×2

	t	o
2	6	
×		2

⑥ 24×3

	t	o
2	4	
×		3

⑦ 35×2

	t	o
3	5	
×		2

⑧ 38×2

	t	o
3	8	
×		2

Exercise

Multiply.

⑨ 17×2

t	o
---	---

$$\begin{array}{r} 17 \\ \times 2 \\ \hline \end{array}$$

⑩ 13×5

t	o
---	---

$$\begin{array}{r} 13 \\ \times 5 \\ \hline \end{array}$$

⑪ 19×3

t	o
---	---

$$\begin{array}{r} 19 \\ \times 3 \\ \hline \end{array}$$

⑫ 16×4

t	o
---	---

$$\begin{array}{r} 16 \\ \times 4 \\ \hline \end{array}$$

⑬ 15×6

t	o
---	---

$$\begin{array}{r} 15 \\ \times 6 \\ \hline \end{array}$$

⑭ 14×7

t	o
---	---

$$\begin{array}{r} 14 \\ \times 7 \\ \hline \end{array}$$

⑮ 25×3

t	o
---	---

$$\begin{array}{r} 25 \\ \times 3 \\ \hline \end{array}$$

⑯ 24×4

t	o
---	---

$$\begin{array}{r} 24 \\ \times 4 \\ \hline \end{array}$$

⑰ 39×2

$$\begin{array}{r} 39 \\ \times 2 \\ \hline \end{array}$$

⑱ 16×5

$$\begin{array}{r} 16 \\ \times 5 \\ \hline \end{array}$$

⑲ 48×2

$$\begin{array}{r} 48 \\ \times 2 \\ \hline \end{array}$$

⑳ 19×5

$$\begin{array}{r} 19 \\ \times 5 \\ \hline \end{array}$$

Example

Multiply. Do not forget to write "×".

$$26 \times 3$$

	t	o
×		



Do not forget!

$$26 \times 3$$

	t	o
×	26	
	78	



Good!

Exercise

Multiply. Do not forget to write "×".

① 18×2

	t	o

② 17×3

	t	o

③ 18×4

	t	o

④ 16×6

	t	o

⑤ 12×8

	t	o

⑥ 27×3

	t	o

⑦ 23×4

	t	o

⑧ 45×2

	t	o

Exercise

Multiply. Do not forget to write "×".

⑨ 14×5

t	o

⑩ 19×2

t	o

⑪ 18×3

t	o

⑫ 17×4

t	o

⑬ 12×7

t	o

⑭ 25×2

t	o

⑮ 26×3

t	o

⑯ 46×2

t	o

⑰ 29×3

⑱ 15×5

⑲ 49×2

⑳ 18×5



Let's calculate this.

$$32 \times 4$$

Start multiplying from the numbers at "o".

h	t	o
	3	2
×		4
<hr/>		
		8

$4 \times 2 = 8$

The multiplication at "o" is $4 \times 2 = 8$, so we write 8 at "o".



Multiply the numbers at "t".

h	t	o
	3	2
×		4
<hr/>		
1	2	8

$4 \times 3 = 12$

The multiplication at "t" is $4 \times 3 = 12$, so we write 2 at "t" and 1 at "h".



32
× 4
<hr/>
8
× 120
<hr/>
128

If we write separately by places, we can find out the answer is made of $8 + 120$.

Example Multiply.

$$32 \times 4$$

h	t	o
---	---	---

$$32 \times 4$$

h	t	o
---	---	---

Exercise Multiply.

① 21×5

h	t	o
---	---	---

② 31×8

h	t	o
---	---	---

③ 43×3

h	t	o
---	---	---

④ 54×2

h	t	o
---	---	---

⑤ 41×7

h	t	o
---	---	---

⑥ 61×6

h	t	o
---	---	---

Exercise Multiply.

⑦ 21×8

h	t	o
2	1	
8		
x		

8×2 (pointing to 2) \rightarrow 8×1 (pointing to 1) \rightarrow 8×1 (pointing to 8)

⑧ 31×7

h	t	o
3	1	
7		
x		

7×3 (pointing to 3) \rightarrow 7×1 (pointing to 1) \rightarrow 7×1 (pointing to 7)

⑨ 42×4

h	t	o
4	2	
4		
x		

4×4 (pointing to 4) \rightarrow 4×2 (pointing to 2) \rightarrow 4×2 (pointing to 4)

⑩ 53×3

h	t	o
5	3	
3		
x		

3×5 (pointing to 5) \rightarrow 3×3 (pointing to 3) \rightarrow 3×3 (pointing to 3)

⑪ 64×2

h	t	o
6	4	
2		
x		

2×6 (pointing to 6) \rightarrow 2×4 (pointing to 4) \rightarrow 2×4 (pointing to 2)

⑫ 72×3

h	t	o
7	2	
3		
x		

3×7 (pointing to 7) \rightarrow 3×2 (pointing to 2) \rightarrow 3×2 (pointing to 3)

⑬ 52×4

h	t	o
5	2	
4		
x		

4×5 (pointing to 5) \rightarrow 4×2 (pointing to 2) \rightarrow 4×2 (pointing to 4)

⑭ 81×7

h	t	o
8	1	
7		
x		

7×8 (pointing to 8) \rightarrow 7×1 (pointing to 1) \rightarrow 7×1 (pointing to 7)

⑮ 93×2

h	t	o
9	3	
2		
x		

2×9 (pointing to 9) \rightarrow 2×3 (pointing to 3) \rightarrow 2×3 (pointing to 2)

⑯ 71×5

h	t	o
7	1	
5		
x		

5×7 (pointing to 7) \rightarrow 5×1 (pointing to 1) \rightarrow 5×1 (pointing to 5)

⑰ 83×3

h	t	o
8	3	
3		
x		

3×8 (pointing to 8) \rightarrow 3×3 (pointing to 3) \rightarrow 3×3 (pointing to 3)

⑱ 91×6

h	t	o
9	1	
6		
x		

6×9 (pointing to 9) \rightarrow 6×1 (pointing to 1) \rightarrow 6×1 (pointing to 6)

Example Multiply.

$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 3 & 2 \\
 \times & & 4 \\
 \hline
 & & \\
 \hline
 \end{array}$$



$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 3 & 2 \\
 \times & & 4 \\
 \hline
 1 & 2 & 8 \\
 \hline
 \end{array}$$



Good!



Exercise Multiply.

① 21×6

$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 2 & 1 \\
 \times & & 6 \\
 \hline
 & & \\
 \hline
 \end{array}$$

② 31×4

$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 3 & 1 \\
 \times & & 4 \\
 \hline
 & & \\
 \hline
 \end{array}$$

③ 41×5

$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 4 & 1 \\
 \times & & 5 \\
 \hline
 & & \\
 \hline
 \end{array}$$

④ 51×3

$$\begin{array}{|c|c|c|}
 \hline
 \text{h} & \text{t} & \text{o} \\
 \hline
 & 5 & 1 \\
 \times & & 3 \\
 \hline
 & & \\
 \hline
 \end{array}$$

⑤ 61×8

$$\begin{array}{|c|c|c|}
 \hline
 & 6 & 1 \\
 \times & & 8 \\
 \hline
 & & \\
 \hline
 \end{array}$$

⑥ 72×2

$$\begin{array}{|c|c|c|}
 \hline
 & 7 & 2 \\
 \times & & 2 \\
 \hline
 & & \\
 \hline
 \end{array}$$

⑦ 81×7

$$\begin{array}{|c|c|c|}
 \hline
 & 8 & 1 \\
 \times & & 7 \\
 \hline
 & & \\
 \hline
 \end{array}$$

⑧ 93×2

$$\begin{array}{|c|c|c|}
 \hline
 & 9 & 3 \\
 \times & & 2 \\
 \hline
 & & \\
 \hline
 \end{array}$$

Example Multiply. Do not forget to write "×".

$$32 \times 4$$

h	t	o
---	---	---

×		



$$32 \times 4$$

h	t	o
---	---	---

×	32	4
1	2	8

Do not forget!



Good!

Exercise Multiply. Do not forget to write "×".

① 21×7

h	t	o

② 31×5

h	t	o

③ 41×3

h	t	o

④ 51×2

h	t	o

⑤ 62×4

h	t	o

⑥ 71×6

h	t	o

Exercise Multiply. Do not forget to write "×".

⑦ 21×9

h	t	o

⑧ 31×8

h	t	o

⑨ 42×3

h	t	o

⑩ 82×2

h	t	o

⑪ 92×3

h	t	o

⑫ 52×4

h	t	o

⑬ 63×2

⑭ 73×3

⑮ 91×5

“o” means ●, “t” means × “h means ○.



Let's calculate this.

$$54 \times 3$$

Start multiplying from the numbers at “o”.

h	t	o
	5	4
×		3
<hr/>		
	1	2

$3 \times 4 = 12$

The multiplication at “o” is $3 \times 4 = 12$, so we write 2 at “o” and write small 1 at “t”.



Multiply the numbers at “t”.

h	t	o
	5	4
×		3
<hr/>		
1	6	2

$3 \times 5 = 15$

$15 + 1 = 16$

The multiplication at “t” is $3 \times 5 = 15$. We add the small 1 to 15, so it is 16. So we write 6 at “t” and 1 at “h”.



54	If we write separately by places, we can find out the answer is made of $12 + 150$.
×	
3	
<hr/>	
12	
+	
150	
<hr/>	
162	





Let's calculate this.

$$36 \times 9$$

Start multiplying from the numbers at "o".

h	t	o
	3	6
×		9
<hr/>		
	5	4

$9 \times 6 = 54$

The multiplication at "o" is $9 \times 6 = 54$, so we write 4 at "o" and write small 5 at "t".



Multiply the numbers at "t".

h	t	o
	3	6
×		9
<hr/>		
3	2	4

$9 \times 3 = 27$

$27 + 5 = 32$

The multiplication at "t" is $9 \times 3 = 27$. We add the small 5 to 27, so it is 32. So we write 2 at "t" and 3 at "h".



$$\begin{array}{r} 36 \\ \times 9 \\ \hline 54 \\ + 270 \\ \hline 324 \end{array}$$

If we write separately by places, we can find out the answer is made of $54 + 270$.



Example Multiply.

$$36 \times 9$$

h	t	o
---	---	---



$$36 \times 9$$

h	t	o
---	---	---

Do not forget to add!



Exercise Multiply.

① 16×8

h	t	o
---	---	---

② 19×6

h	t	o
---	---	---

③ 28×6

h	t	o
---	---	---

④ 26×7

h	t	o
---	---	---

⑤ 28×4

h	t	o
---	---	---

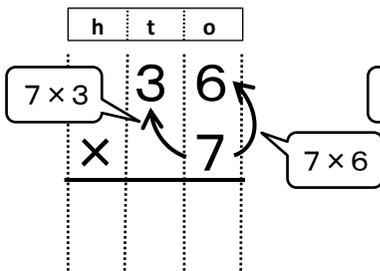
⑥ 37×3

h	t	o
---	---	---

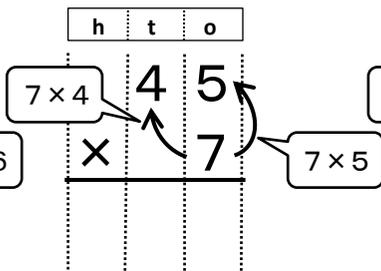
Exercise

Multiply.

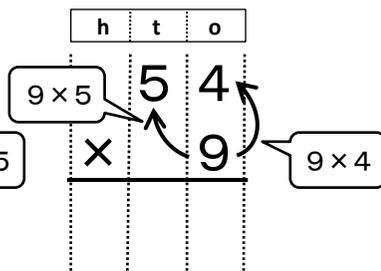
⑦ 36×7



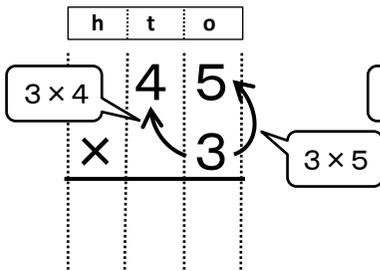
⑧ 45×7



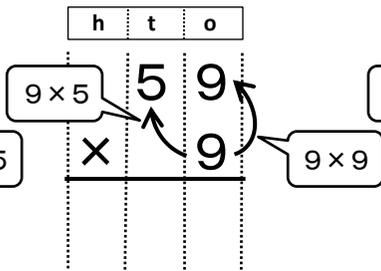
⑨ 54×9



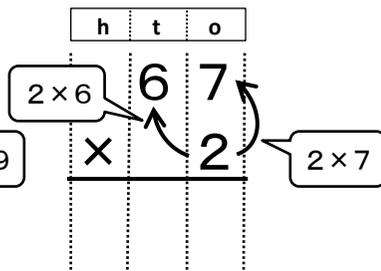
⑩ 45×3



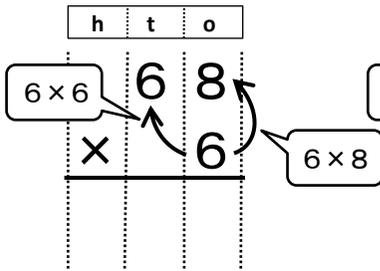
⑪ 59×9



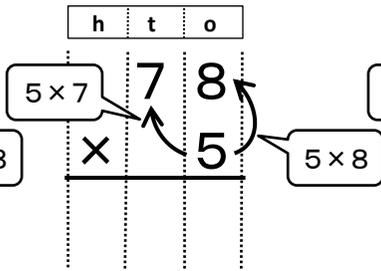
⑫ 67×2



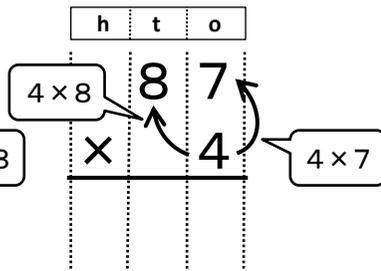
⑬ 68×6



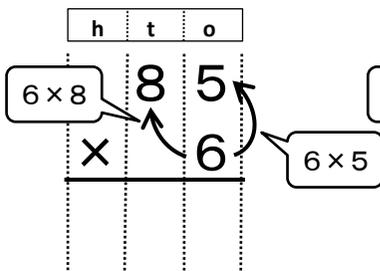
⑭ 78×5



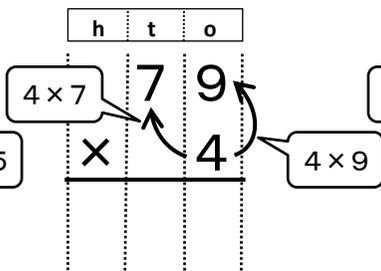
⑮ 87×4



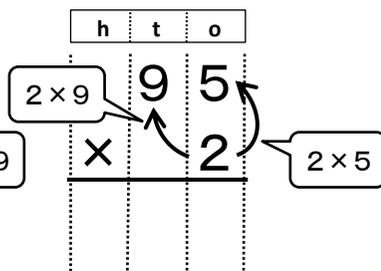
⑯ 85×6



⑰ 79×4



⑱ 95×2



Example Multiply.

h	t	o
---	---	---

$$\begin{array}{r} 36 \\ \times 9 \\ \hline \end{array}$$



h	t	o
---	---	---

$$\begin{array}{r} 36 \\ \times 9 \\ \hline 324 \end{array}$$

Do not forget to add!

Good!



Exercise Multiply.

① 22×6

h	t	o
---	---	---

$$\begin{array}{r} 22 \\ \times 6 \\ \hline \end{array}$$

② 16×7

h	t	o
---	---	---

$$\begin{array}{r} 16 \\ \times 7 \\ \hline \end{array}$$

③ 27×8

h	t	o
---	---	---

$$\begin{array}{r} 27 \\ \times 8 \\ \hline \end{array}$$

④ 35×4

h	t	o
---	---	---

$$\begin{array}{r} 35 \\ \times 4 \\ \hline \end{array}$$

⑤ 35×6

h	t	o
---	---	---

$$\begin{array}{r} 35 \\ \times 6 \\ \hline \end{array}$$

⑥ 45×6

h	t	o
---	---	---

$$\begin{array}{r} 45 \\ \times 6 \\ \hline \end{array}$$

⑦ 48×7

h	t	o
---	---	---

$$\begin{array}{r} 48 \\ \times 7 \\ \hline \end{array}$$

⑧ 54×3

h	t	o
---	---	---

$$\begin{array}{r} 54 \\ \times 3 \\ \hline \end{array}$$

Exercise

Multiply.

⑨ 25×7

h	t	o
	2	5
×		7
<hr/>		

⑩ 32×8

h	t	o
	3	2
×		8
<hr/>		

⑪ 35×5

h	t	o
	3	5
×		5
<hr/>		

⑫ 43×4

h	t	o
	4	3
×		4
<hr/>		

⑬ 59×7

h	t	o
	5	9
×		7
<hr/>		

⑭ 62×8

h	t	o
	6	2
×		8
<hr/>		

⑮ 65×2

h	t	o
	6	5
×		2
<hr/>		

⑯ 69×6

h	t	o
	6	9
×		6
<hr/>		

⑰ 72×5

h	t	o
	7	2
×		5
<hr/>		

⑱ 78×4

h	t	o
	7	8
×		4
<hr/>		

⑲ 77×9

h	t	o
	7	7
×		9
<hr/>		

⑳ 73×7

h	t	o
	7	3
×		7
<hr/>		

㉑ 83×4

	8	3
×		4
<hr/>		

㉒ 86×6

	8	6
×		6
<hr/>		

㉓ 89×8

	8	9
×		8
<hr/>		

㉔ 96×2

	9	6
×		2
<hr/>		

Example Multiply. Do not forget to write "×".

$$36 \times 9$$

h	t	o
---	---	---

×		



$$36 \times 9$$

h	t	o
---	---	---

	36	
×	9	
3	5 2	4

Do not forget!



Exercise Multiply. Do not forget to write "×".

① 19×8

h	t	o

② 23×7

h	t	o

③ 24×9

h	t	o

④ 32×6

h	t	o

⑤ 48×3

h	t	o

⑥ 37×6

h	t	o

Example Multiply. Do not forget to write "×".

⑦ 46×9

h	t	o

⑧ 57×5

h	t	o

⑨ 66×7

h	t	o

⑩ 58×9

h	t	o

⑪ 64×8

h	t	o

⑫ 75×9

h	t	o

⑬ 78×8

⑭ 82×6

⑮ 97×2

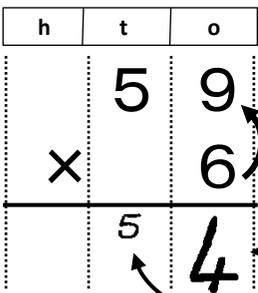
"o" means ●, "t" means × "h means ○.



Let's calculate this.

$$59 \times 6$$

Start multiplying from the numbers at "o".

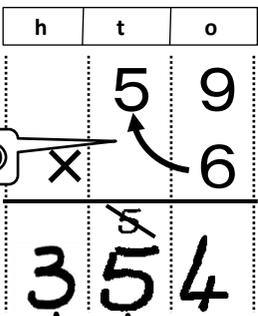


$6 \times 9 = 54$

The multiplication at "o" is $6 \times 9 = 54$, so we write 4 at "o" and write small 5 at "t".



Multiply the numbers at "t".



$6 \times 5 = 30$

$30 + 5 = 35$

The multiplication at "t" is $6 \times 5 = 30$. We add the small 5 to 30, so it is 35. So we write 5 at "t" and 3 at "h".



59
× 6
<hr/>
54
+ 300
<hr/>
354

If we write separately by places, we can find out the answer is made of $54 + 300$.



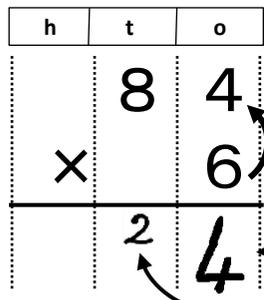
"o" means ●, "t" means × "h means ○.



Let's calculate this.

$$84 \times 6$$

Start multiplying from the numbers at "o".

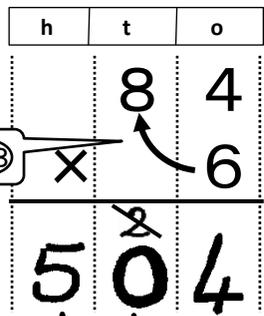


$6 \times 4 = 24$

The multiplication at "o" is $6 \times 4 = 24$, so we write 4 at "o" and write small 2 at "t".



Multiply the numbers at "t".



$6 \times 8 = 48$

$48 + 2 = 50$

The multiplication at "t" is $6 \times 8 = 48$. We add the small 2 to 48, so it is 50. So we write 0 at "t" and 5 at "h".



84
× 6
—
24
+ 480
—
504

If we write separately by places, we can find out the answer is made of $24 + 480$.



Example Multiply.

$$84 \times 6$$

h	t	o
---	---	---



$$84 \times 6$$

h	t	o
---	---	---

Do not forget to add!



Exercise Multiply.

① 27×5

h	t	o
---	---	---

② 12×9

h	t	o
---	---	---

③ 23×9

h	t	o
---	---	---

④ 34×3

h	t	o
---	---	---

⑤ 58×2

h	t	o
---	---	---

⑥ 43×7

h	t	o
---	---	---

Exercise Multiply.

⑦ 18×6

h	t	o
1	8	
		6
x		

6×1 → 6×8 → 6×10

⑧ 26×4

h	t	o
2	6	
		4
x		

4×2 → 4×6 → 4×10

⑨ 38×8

h	t	o
3	8	
		8
x		

8×3 → 8×8 → 8×10

⑩ 63×5

h	t	o
6	3	
		5
x		

5×6 → 5×3 → 5×10

⑪ 56×9

h	t	o
5	6	
		9
x		

9×5 → 9×6 → 9×10

⑫ 75×4

h	t	o
7	5	
		4
x		

4×7 → 4×5 → 4×10

⑬ 54×6

h	t	o
5	4	
		6
x		

6×5 → 6×4 → 6×10

⑭ 67×6

h	t	o
6	7	
		6
x		

6×6 → 6×7 → 6×10

⑮ 43×5

h	t	o
4	3	
		5
x		

5×4 → 5×3 → 5×10

⑯ 89×5

h	t	o
8	9	
		5
x		

5×8 → 5×9 → 5×10

⑰ 68×3

h	t	o
6	8	
		3
x		

3×6 → 3×8 → 3×10

⑱ 86×7

h	t	o
8	6	
		7
x		

7×8 → 7×6 → 7×10

Example Multiply.

h	t	o
---	---	---

$$\begin{array}{r} 84 \\ \times 6 \\ \hline \end{array}$$



h	t	o
---	---	---

$$\begin{array}{r} 84 \\ \times 6 \\ \hline 504 \end{array}$$

Do not forget to add!



Exercise Multiply.

① 15×7

h	t	o
---	---	---

$$\begin{array}{r} 15 \\ \times 7 \\ \hline \end{array}$$

② 26×5

h	t	o
---	---	---

$$\begin{array}{r} 26 \\ \times 5 \\ \hline \end{array}$$

③ 25×8

h	t	o
---	---	---

$$\begin{array}{r} 25 \\ \times 8 \\ \hline \end{array}$$

④ 26×8

h	t	o
---	---	---

$$\begin{array}{r} 26 \\ \times 8 \\ \hline \end{array}$$

⑤ 27×4

h	t	o
---	---	---

$$\begin{array}{r} 27 \\ \times 4 \\ \hline \end{array}$$

⑥ 29×7

h	t	o
---	---	---

$$\begin{array}{r} 29 \\ \times 7 \\ \hline \end{array}$$

⑦ 36×3

h	t	o
---	---	---

$$\begin{array}{r} 36 \\ \times 3 \\ \hline \end{array}$$

⑧ 34×6

h	t	o
---	---	---

$$\begin{array}{r} 34 \\ \times 6 \\ \hline \end{array}$$

Exercise Multiply.

⑨ 47×5

h	t	o
	4	7
×		5
<hr/>		

⑩ 44×7

h	t	o
	4	4
×		7
<hr/>		

⑪ 53×8

h	t	o
	5	3
×		8
<hr/>		

⑫ 58×7

h	t	o
	5	8
×		7
<hr/>		

⑬ 57×2

h	t	o
	5	7
×		2
<hr/>		

⑭ 67×9

h	t	o
	6	7
×		9
<hr/>		

⑮ 69×3

h	t	o
	6	9
×		3
<hr/>		

⑯ 67×5

h	t	o
	6	7
×		5
<hr/>		

⑰ 76×4

h	t	o
	7	6
×		4
<hr/>		

⑱ 72×7

h	t	o
	7	2
×		7
<hr/>		

⑲ 75×8

h	t	o
	7	5
×		8
<hr/>		

⑳ 78×9

h	t	o
	7	8
×		9
<hr/>		

㉑ 76×8

	7	6
×		8
<hr/>		

㉒ 86×5

	8	6
×		5
<hr/>		

㉓ 87×7

	8	7
×		7
<hr/>		

㉔ 89×9

	8	9
×		9
<hr/>		

Example

Multiply. Do not forget to write "×".

$$84 \times 6$$

h	t	o
---	---	---

×		



$$84 \times 6$$

h	t	o
---	---	---

	8	4
×		6
5	0	4

Do not forget!!

Good!



Exercise

Multiply. Do not forget to write "×".

① 13×8

h	t	o

② 17×6

h	t	o

③ 23×5

h	t	o

④ 25×4

h	t	o

⑤ 34×9

h	t	o

⑥ 35×3

h	t	o

Exercise Multiply. Do not forget to write "×".

⑦ 46×5

h	t	o

⑧ 45×9

h	t	o

⑨ 52×8

h	t	o

⑩ 56×4

h	t	o

⑪ 67×5

h	t	o

⑫ 77×4

h	t	o

⑬ 67×3

⑭ 88×8

⑮ 83×5

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$231 \times 3$$

Start multiplying from the numbers at "o".

th	h	t	o
	2	3	1
×			3
<hr/>			
	6	9	3

The multiplication at "o" is $1 \times 3 = 3$, so we write 3 at "o".



Multiply the numbers at "t".

th	h	t	o
	2	3	1
×			3
<hr/>			
	6	9	3

The multiplication at "t" is $3 \times 3 = 9$. So we write 9 at "t".



Multiply the numbers at "h".

th	h	t	o
	2	3	1
×			3
<hr/>			
	6	9	3

The multiplication at "h" is $3 \times 2 = 6$. So we write 6 at "h".



231
× 3
— 3
90
+ 600
693

If we write separately by places, we can find out the answer is made of $3 + 90 + 600$.



Example Multiply.

$$231 \times 3$$

th	h	t	o
----	---	---	---

2 3 1
× 3



$$231 \times 3$$

th	h	t	o
----	---	---	---

2 3 1
× 3

6 9 3

Exercise Multiply.

① 312×2

th	h	t	o
----	---	---	---

3 1 2
× 2

② 123×3

th	h	t	o
----	---	---	---

1 2 3
× 3

③ 213×3

th	h	t	o
----	---	---	---

2 1 3
× 3

④ 422×2

th	h	t	o
----	---	---	---

4 2 2
× 2

⑤ 141×2

th	h	t	o
----	---	---	---

1 4 1
× 2

⑥ 233×3

th	h	t	o
----	---	---	---

2 3 3
× 3

Exercise Multiply. Do not forget to write "x".

⑦ 112×3

th	h	t	o
	1	1	2
x			3
<hr/>			

⑧ 421×2

th	h	t	o
	4	2	1
x			2
<hr/>			

⑨ 314×2

th	h	t	o
	3	1	4
x			2
<hr/>			

⑩ 331×3

th	h	t	o
	3	3	1
x			3
<hr/>			

⑪ 111×6

th	h	t	o
	1	1	1
x			6
<hr/>			

⑫ 232×3

th	h	t	o
	2	3	2
x			3
<hr/>			

⑬ 221×4

th	h	t	o
	2	2	1
x			4
<hr/>			

⑭ 133×2

th	h	t	o
	1	3	3
x			2
<hr/>			

⑮ 244×2

th	h	t	o
	2	4	4
x			2
<hr/>			

Example Multiply.

$$231 \times 3$$

th	h	t	o
----	---	---	---

	2	3	1	
×			3	
<hr/>				



$$231 \times 3$$

th	h	t	o
----	---	---	---

	2	3	1	
×			3	
<hr/>				
	6	9	3	



Good!



Exercise Multiply.

① 112×4

th	h	t	o
----	---	---	---

	1	1	2	
×			4	
<hr/>				

② 223×2

th	h	t	o
----	---	---	---

	2	2	3	
×			2	
<hr/>				

③ 122×4

th	h	t	o
----	---	---	---

	1	2	2	
×			4	
<hr/>				

④ 332×2

	3	3	2	
×			2	
<hr/>				

⑤ 122×3

	1	2	2	
×			3	
<hr/>				

⑥ 443×2

	4	4	3	
×			2	
<hr/>				

Exercise Multiply. Do not forget to write "×".

$$231 \times 3$$

th	h	t	o
----	---	---	---

×			



$$231 \times 3$$

th	h	t	o
----	---	---	---

×	2	3	1
		3	
6	9	3	



Good!

Do not forget!!

Exercise Multiply. Do not forget to write "×".

① 313×3

th	h	t	o
----	---	---	---

② 212×4

th	h	t	o
----	---	---	---

③ 122×3

th	h	t	o
----	---	---	---

④ 431×2

th	h	t	o
----	---	---	---

⑤ 324×2

th	h	t	o
----	---	---	---

⑥ 134×2

th	h	t	o
----	---	---	---

Exercise Multiply. Do not forget to write "×".

⑦ 313×2

th	h	t	o

⑧ 212×4

th	h	t	o

⑨ 113×3

th	h	t	o

⑩ 322×3

th	h	t	o

⑪ 432×2

th	h	t	o

⑫ 142×2

th	h	t	o

⑬ 231×3

⑭ 111×5

⑮ 343×2

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$324 \times 3$$

Start multiplying from the numbers at “o”.

th	h	t	o
	3	2	4
×			3
		1	2

The multiplication at “o” is $3 \times 4 = 12$, so we write 2 at “o” and write small 1 at “t”.



Multiply the numbers at “t”.

th	h	t	o
	3	2	4
×			3
		7	2

The multiplication at “t” is $3 \times 2 = 6$. We add the small 1 to 6, so it is 7. So we write 7 at “t”.



Multiply the numbers at “h”.

th	h	t	o
	3	2	4
×			3
	9	7	2

The multiplication at “h” is $3 \times 3 = 9$. So we write 9 at “t”.



324
× 3
— 12
60
+ 900
972

If we write separately by places, we can find out the answer is made of $12 + 60 + 800$.



"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$243 \times 3$$

Start multiplying from the numbers at "o".

th	h	t	o
	2	4	3
×			3
			9

The multiplication at "o" is $3 \times 3 = 9$, so we write 9 at "o".



Multiply the numbers at "t".

th	h	t	o
	2	4	3
×			3
	1	2	9

The multiplication at "t" is $3 \times 4 = 12$. So we write 2 at "t" and small 1 at "h".



Multiply the numbers at "h".

th	h	t	o
	2	4	3
×			3
	7	2	9

The multiplication at "h" is $3 \times 2 = 6$. We add the small 1 to 6, so it is 7. So we write 7 at "h".

$6 + 1 = 7$



243
× 3
—
9
120
+ 600
—
729

If we write separately by places, we can find out the answer is made of $8 + 120 + 600$.



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$278 \times 3$$

Start multiplying from the numbers at “o”.

th	h	t	o
	2	7	8
×			3
		2	4

The multiplication at “o” is $3 \times 8 = 24$, so we write 4 at “o” and write small 2 at “t”.



Multiply the numbers at “t”.

th	h	t	o
	2	7	8
×			3
	2	7	4
		3	

21 + 2 = 23

The multiplication at “t” is $3 \times 7 = 21$. We add the small 2 to 21, so it is 23. So we write 3 at “t” and small 2 at “h”.



Multiply the numbers at “h”.

th	h	t	o
	2	7	8
×			3
	2	7	4
	8	3	

6 + 2 = 8

The multiplication at “h” is $3 \times 2 = 6$. We add the small 2 to 6, so it is 8. So we write 8 at “h”.

$$\begin{array}{r} 278 \\ \times 3 \\ \hline 24 \\ 210 \\ + 600 \\ \hline 834 \end{array}$$

If we write separately by places, we can find out the answer is made of $24 + 210 + 600$.



"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$138 \times 6$$

The multiplication at "o" is $6 \times 8 = 54$, so we write 8 at "o" and write small 4 at "t".

Start multiplying from the numbers at "o".

th	h	t	o
	1	3	8
×			6
		4	8



The multiplication at "t" is $6 \times 3 = 18$. We add the small 4 to 18, so it is 22. So we write 2 at "t" and small 2 at "h".

Multiply the numbers at "t".

th	h	t	o
	1	3	8
×			6
	2	2	8

$$18 + 4 = 22$$



The multiplication at "h" is $6 \times 1 = 6$. We add the small 2 to 6, so it is 8. So we write 8 at "h".

Multiply the numbers at "h".

th	h	t	o
	1	3	8
×			6
	8	2	8

$$6 + 2 = 8$$



$$\begin{array}{r} 138 \\ \times 6 \\ \hline 48 \\ 180 \\ + 600 \\ \hline 828 \end{array}$$

If we write separately by places, we can find out the answer is made of $48 + 180 + 600$.



Example Multiply.

$$278 \times 3$$

th	h	t	o
----	---	---	---

	2	7	8
×			3
<hr/>			



$$278 \times 3$$

th	h	t	o
----	---	---	---

	2	7	8
×			3
<hr/>			
	8	3	4

Good!

Exercise Multiply.

① 116×4

th	h	t	o
----	---	---	---

	1	1	6
×			4
<hr/>			

② 129×3

th	h	t	o
----	---	---	---

	1	2	9
×			3
<hr/>			

③ 428×2

th	h	t	o
----	---	---	---

	4	2	8
×			2
<hr/>			

④ 141×7

th	h	t	o
----	---	---	---

	1	4	1
×			7
<hr/>			

⑤ 232×4

th	h	t	o
----	---	---	---

	2	3	2
×			4
<hr/>			

⑥ 263×3

th	h	t	o
----	---	---	---

	2	6	3
×			3
<hr/>			

Exercise

Multiply. Do not forget to write "×".

⑦ 136×7

th	h	t	o
	1	3	6
×			7
<hr/>			

⑧ 154×4

th	h	t	o
	1	5	4
×			4
<hr/>			

⑨ 245×3

th	h	t	o
	2	4	5
×			3
<hr/>			

⑩ 173×5

th	h	t	o
	1	7	3
×			5
<hr/>			

⑪ 147×6

th	h	t	o
	1	4	7
×			6
<hr/>			

⑫ 158×4

th	h	t	o
	1	5	8
×			4
<hr/>			

⑬ 138×3

th	h	t	o
	1	3	8
×			3
<hr/>			

⑭ 269×3

th	h	t	o
	2	6	9
×			3
<hr/>			

⑮ 168×3

th	h	t	o
	1	6	8
×			3
<hr/>			

Example Multiply.

$$278 \times 3$$

th	h	t	o
----	---	---	---

	2	7	8
×			3
<hr/>			



$$278 \times 3$$

th	h	t	o
----	---	---	---

	2	7	8
×			3
<hr/>			
	8	3	4



Good!



Exercise Multiply.

① 116×5

th	h	t	o
----	---	---	---

	1	1	6
×			5
<hr/>			

② 217×4

th	h	t	o
----	---	---	---

	2	1	7
×			4
<hr/>			

③ 325×2

th	h	t	o
----	---	---	---

	3	2	5
×			2
<hr/>			

④ 151×6

th	h	t	o
----	---	---	---

	1	5	1
×			6
<hr/>			

⑤ 283×3

th	h	t	o
----	---	---	---

	2	8	3
×			3
<hr/>			

⑥ 391×2

th	h	t	o
----	---	---	---

	3	9	1
×			2
<hr/>			

Exercise

Multiply. Do not forget to write "×".

⑦ 125×7

th	h	t	o
	1	2	5
×			7
<hr/>			

⑧ 132×6

th	h	t	o
	1	3	2
×			6
<hr/>			

⑨ 243×4

th	h	t	o
	2	4	3
×			4
<hr/>			

⑩ 239×3

th	h	t	o
	2	3	9
×			3
<hr/>			

⑪ 137×6

th	h	t	o
	1	3	7
×			6
<hr/>			

⑫ 178×4

th	h	t	o
	1	7	8
×			4
<hr/>			

⑬ 189×4

th	h	t	o
	1	8	9
×			4
<hr/>			

⑭ 386×2

th	h	t	o
	3	8	6
×			2
<hr/>			

⑮ 172×5

th	h	t	o
	1	7	2
×			5
<hr/>			

Example Multiply. Do not forget to write "×".

$$278 \times 3$$

th	h	t	o
----	---	---	---

×			



$$278 \times 3$$

th	h	t	o
----	---	---	---

×	2	7	8
	2	2	4



Good!

Do not forget!

Exercise Multiply. Do not forget to write "×".

① 112×8

th	h	t	o

② 123×4

th	h	t	o

③ 114×6

th	h	t	o

④ 262×2

th	h	t	o

⑤ 242×3

th	h	t	o

⑥ 171×4

th	h	t	o

Exercise

Multiply. Do not forget to write "×".

⑦ 138×4

th	h	t	o

⑧ 157×5

th	h	t	o

⑨ 166×3

th	h	t	o

⑩ 129×4

th	h	t	o

⑪ 139×6

th	h	t	o

⑫ 238×3

th	h	t	o

⑬ 258×3

⑭ 367×2

⑮ 475×2



Let's calculate this.

$$432 \times 3$$

Start multiplying from the numbers at “o”.

th	h	t	o
	4	3	2
×			3
			6

The multiplication at “o” is $2 \times 3 = 6$, so we write 6 at “o”.



Multiply the numbers at “t”.

th	h	t	o
	4	3	2
×			3
		9	6

The multiplication at “t” is $3 \times 3 = 9$. So we write 9 at “t”.



Multiply the numbers at “h”.

th	h	t	o
	4	3	2
×			3
1	2	9	6

The multiplication at “h” is $3 \times 4 = 12$. So we write 2 at “h” and 1 at “th”.

$$\begin{array}{r} 432 \\ \times 3 \\ \hline 6 \\ 90 \\ + 1200 \\ \hline 1296 \end{array}$$

If we write separately by places, we can find out the answer is made of $6 + 80 + 1200$.



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$692 \times 3$$

Start multiplying from the numbers at “o”.

th	h	t	o
	6	9	2
×			3
			6

The multiplication at “o” is $2 \times 3 = 6$, so we write 6 at “o”.



Multiply the numbers at “t”.

th	h	t	o
	6	9	2
×			3
	2	7	6

The multiplication at “t” is $3 \times 9 = 27$. So we write 7 at “t” and small 2 at “h”.



Multiply the numbers at “h”.

th	h	t	o
	6	9	2
×			3
	20	7	6

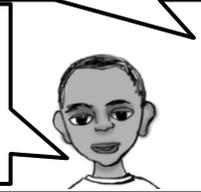
$18 + 2 = 20$

The multiplication at “h” is $3 \times 6 = 18$. We add the small 2 to 18, so it is 20. So we write 0 at “h” and 2 at “th”.



692
× 3
6
270
+ 1800
2076

If we write separately by places, we can find out the answer is made of $6 + 270 + 1800$.



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$387 \times 6$$

Start multiplying from the numbers at “o”.

th	h	t	o
	3	8	7
×			6
			4
			2

The multiplication at “o” is $6 \times 7 = 42$, so we write 6 at “o” and small 4 at “t”.



Multiply the numbers at “t”.

th	h	t	o
	3	8	7
×			6
		5	4
		2	2

$48 + 4 = 52$

The multiplication at “t” is $6 \times 8 = 48$. We add small 4 to 48, so it is 52. So we write 2 at “t” and 5 at “h”.



Multiply the numbers at “h”.

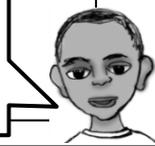
th	h	t	o
	3	8	7
×			6
2	5	4	
2	3	2	2

$18 + 5 = 23$

The multiplication at “h” is $6 \times 3 = 18$. We add the small 5 to 18, so it is 23. So we write 3 at “h” and 2 at “th”.

$$\begin{array}{r} 387 \\ \times 6 \\ \hline 42 \\ 480 \\ + 1800 \\ \hline 2322 \end{array}$$

If we write separately by places, we can find out the answer is made of $42 + 480 + 1800$.



Example Multiply.

$$387 \times 6$$

th	h	t	o
----	---	---	---

3 8 7
× 6



$$387 \times 6$$

th	h	t	o
----	---	---	---

3 8 7
× 6

2 3 2 2

Good!

Exercise Multiply.

① 613×2

th	h	t	o
----	---	---	---

6 1 3
× 2

② 523×3

th	h	t	o
----	---	---	---

5 2 3
× 3

③ 412×3

th	h	t	o
----	---	---	---

4 1 2
× 3

④ 341×7

th	h	t	o
----	---	---	---

3 4 1
× 7

⑤ 232×6

th	h	t	o
----	---	---	---

2 3 2
× 6

⑥ 363×3

th	h	t	o
----	---	---	---

3 6 3
× 3

Exercise

Multiply. Do not forget to write "×".

⑦ 236×7

th	h	t	o
	2	3	6
×			7
<hr/>			

⑧ 354×4

th	h	t	o
	3	5	4
×			4
<hr/>			

⑨ 245×6

th	h	t	o
	2	4	5
×			6
<hr/>			

⑩ 373×5

th	h	t	o
	3	7	3
×			5
<hr/>			

⑪ 147×8

th	h	t	o
	1	4	7
×			8
<hr/>			

⑫ 158×7

th	h	t	o
	1	5	8
×			7
<hr/>			

⑬ 438×3

th	h	t	o
	4	3	8
×			3
<hr/>			

⑭ 269×8

th	h	t	o
	2	6	9
×			8
<hr/>			

⑮ 768×3

th	h	t	o
	7	6	8
×			3
<hr/>			

Exercise Multiply.

$$387 \times 6$$

th	h	t	o
----	---	---	---

	3	8	7
×			6
<hr/>			



$$387 \times 6$$

th	h	t	o
----	---	---	---

	3	8	7
×			6
<hr/>			
2	3	2	2



Good!



Exercise Multiply.

$$\textcircled{1} 723 \times 2$$

th	h	t	o
----	---	---	---

	7	2	3
×			2
<hr/>			

$$\textcircled{2} 412 \times 4$$

th	h	t	o
----	---	---	---

	4	1	2
×			4
<hr/>			

$$\textcircled{3} 932 \times 2$$

th	h	t	o
----	---	---	---

	9	3	2
×			2
<hr/>			

$$\textcircled{4} 151 \times 9$$

th	h	t	o
----	---	---	---

	1	5	1
×			9
<hr/>			

$$\textcircled{5} 283 \times 4$$

th	h	t	o
----	---	---	---

	2	8	3
×			4
<hr/>			

$$\textcircled{6} 391 \times 6$$

th	h	t	o
----	---	---	---

	3	9	1
×			6
<hr/>			

Exercise Multiply. Do not forget to write "×".

⑦ 325×7

th	h	t	o
	3	2	5
×			7
<hr/>			

⑧ 132×8

th	h	t	o
	1	3	2
×			8
<hr/>			

⑨ 643×4

th	h	t	o
	6	4	3
×			4
<hr/>			

⑩ 439×3

th	h	t	o
	4	3	9
×			3
<hr/>			

⑪ 137×9

th	h	t	o
	1	3	7
×			9
<hr/>			

⑫ 378×4

th	h	t	o
	3	7	8
×			4
<hr/>			

⑬ 189×6

th	h	t	o
	1	8	9
×			6
<hr/>			

⑭ 386×8

th	h	t	o
	3	8	6
×			8
<hr/>			

⑮ 172×9

th	h	t	o
	1	7	2
×			9
<hr/>			

Example Multiply. Do not forget to write "×".

$$387 \times 6$$

th	h	t	o
----	---	---	---

×			



$$387 \times 6$$

th	h	t	o
----	---	---	---

×	3	8	7
	5	4	
2	3	2	2



Good!

Do not forget!

Exercise Multiply. Do not forget to write "×".

① 631×2

th	h	t	o

② 824×2

th	h	t	o

③ 734×2

th	h	t	o

④ 462×3

th	h	t	o

⑤ 742×3

th	h	t	o

⑥ 171×9

th	h	t	o

Exercise Multiply. Do not forget to write "×".

⑦ 238×6

th	h	t	o

⑧ 357×5

th	h	t	o

⑨ 466×3

th	h	t	o

⑩ 129×8

th	h	t	o

⑪ 439×6

th	h	t	o

⑫ 238×5

th	h	t	o

⑬ 258×7

⑭ 367×4

⑮ 675×2

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$703 \times 6$$

Start multiplying from the numbers at “o”.

th	h	t	o
	7	0	3
×			6
		1	8

The multiplication at “o” is $6 \times 3 = 18$, so we write 8 at “o” and small 1 at “t”.



Multiply the numbers at “t”.

th	h	t	o
	7	0	3
×		6	
		1	8

The multiplication at “t” is $6 \times 0 = 0$. We add 1 to 0, so it is 1. So we write 1 at “t”.



Multiply the numbers at “h”.

th	h	t	o
	7	0	3
×	6		
4	2	1	8

The multiplication at “h” is $6 \times 7 = 42$. So we write 2 at “h” and 4 at “th”.



703
× 6
— 18
0
+ 4200
— 4218

If we write separately by places, we can find out the answer is made of $18 + 0 + 4200$.



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$270 \times 8$$

The multiplication at “o” is $8 \times 0 = 6$, so we write 0 at “o”.



Start multiplying from the numbers at “o”.

th	h	t	o
	2	7	0
×			8
			0

The multiplication at “t” is $8 \times 7 = 56$. So we write 6 at “t” and small 5 at “h”.

Multiply the numbers at “t”.

th	h	t	o
	2	7	0
×			8
	5	6	0



Multiply the numbers at “h”.

th	h	t	o
	2	7	0
×			8
	2	1	6
			0

The multiplication at “h” is $8 \times 2 = 16$. We add 5 to 16, so it is 21. So we write 1 at “h” and 2 at “th”.



$$16 + 5 = 21$$

270
× 8
0
560
+ 1600
2160

If we write separately by places, we can find out the answer is made of 0 + 560 + 1600. $560 + 1600$.



Example Multiply.

$$703 \times 6$$

th	h	t	o
----	---	---	---

	7	0	3
×			6
<hr/>			



$$703 \times 6$$

th	h	t	o
----	---	---	---

	7	0	3
×			6
<hr/>			
	4	2	18



Good!



Exercise Multiply.

① 320×8

th	h	t	o
----	---	---	---

	3	2	0
×			8
<hr/>			

② 540×3

th	h	t	o
----	---	---	---

	5	4	0
×			3
<hr/>			

③ 410×6

th	h	t	o
----	---	---	---

	4	1	0
×			6
<hr/>			

④ 301×7

th	h	t	o
----	---	---	---

	3	0	1
×			7
<hr/>			

⑤ 204×6

th	h	t	o
----	---	---	---

	2	0	4
×			6
<hr/>			

⑥ 609×8

th	h	t	o
----	---	---	---

	6	0	9
×			8
<hr/>			

Example Multiply.

$$703 \times 6$$

th	h	t	o
----	---	---	---

	7	0	3
×			6
<hr/>			



$$703 \times 6$$

th	h	t	o
----	---	---	---

	7	0	3
×			6
<hr/>			
4	2	1	8



Good!



Exercise Multiply.

① 730×2

th	h	t	o
----	---	---	---

	7	3	0
×			2
<hr/>			

② 670×4

th	h	t	o
----	---	---	---

	6	7	0
×			4
<hr/>			

③ 930×7

th	h	t	o
----	---	---	---

	9	3	0
×			7
<hr/>			

④ 505×8

	5	0	5
×			8
<hr/>			

⑤ 608×4

	6	0	8
×			4
<hr/>			

⑥ 307×6

	3	0	7
×			6
<hr/>			

Example Multiply. Do not forget to write "×".

$$703 \times 6$$

th	h	t	o
----	---	---	---

×			



$$703 \times 6$$

th	h	t	o
----	---	---	---

×	7	0	3
4	2	1	8

Do not forget!!



Exercise Multiply. Do not forget to write "×".

① 680×4

th	h	t	o

② 820×3

th	h	t	o

③ 790×6

th	h	t	o

④ 402×3

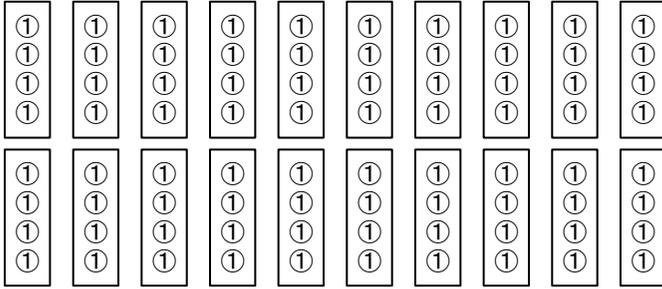
⑤ 702×3

⑥ 503×9



Let's find out the answer of 4×20 .

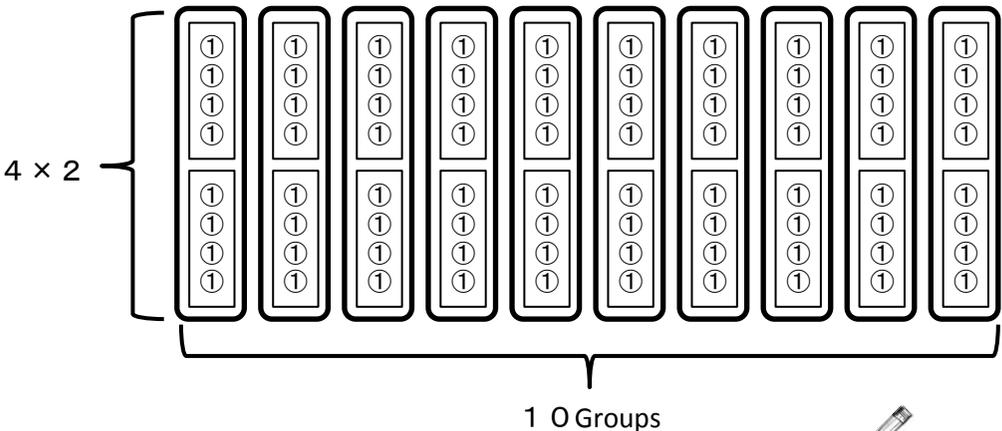
$$4 \times 20 = \boxed{}$$



4×20 means 20 groups of 4.



If we make a pair of 4, there are 10 groups.
Let's find out the total number by multiplication.

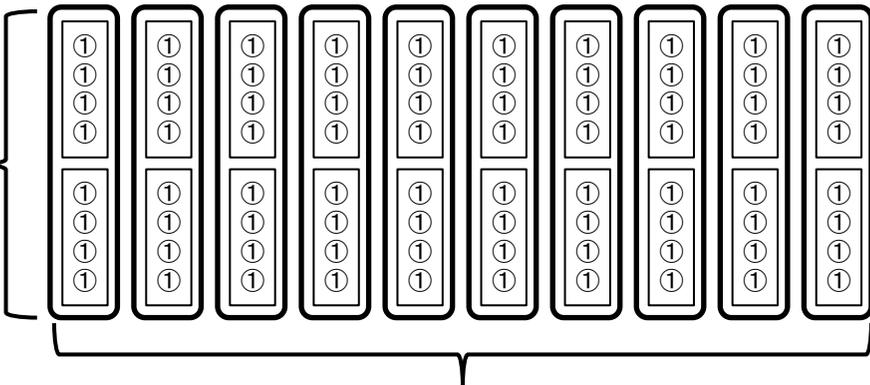


$$(4 \times 2) \times 10 = \boxed{}$$



The (4×2) means we have to calculate inside the $()$ first.

$$4 \times 2$$



10 Groups

$$(4 \times 2) \times 10 =$$

80



Good!

$$(4 \times 2) \times 10 = 4 \times 20$$

$$4 \times 20 =$$

$(4 \times 2) \times 10$ and 4×20
are the same number.



$$(4 \times 2) \times 10 = 4 \times 20$$

$$4 \times 20 =$$

80



Good!



Let's compare 4×20 and 4×2 .

$$4 \times 20 = 80$$

$$4 \times 2 = 8$$

The answer of 4×20 is the
same as the number which
right 0 at "o" of 4×2 .





Let's find the answer of 14×20 by using the answer of 14×2 .

$$14 \times 2 = \boxed{}$$

$$14 \times 20 = \boxed{}$$

First, find the answer of 14×2 .



Let's find the answer of 14×2 .

$$14 \times 2 = \boxed{}$$

$$14 \times 20 = \boxed{}$$

1	4
	2

$$14 \times 2 = \boxed{28}$$

$$14 \times 20 = \boxed{}$$



1	4
	2



14×20 is a number with 0 at the 2 of 14×2 .

$$14 \times 2 = \boxed{28}$$

$$14 \times 20 = \boxed{280}$$



Put a 0 to the answer of 14×2 .



Let's find the answer of 30×20 by using the answer of 30×2 .

$$30 \times 2 = \boxed{}$$

$$30 \times 20 = \boxed{}$$

First, find the answer of 30×2 .



We can easily find the answer of 30×2 because it is 2 sets of 30.

$$30 \times 2 = \boxed{60}$$

$$30 \times 20 = \boxed{}$$



Good!

30×20 is a number with 0 at the 2 of 30×2 .

$$30 \times 2 = \boxed{60}$$

$$30 \times 20 = \boxed{600}$$



Good!



Let's compare the 3 number sentences.

$$3 \times 2 = 6$$

$$30 \times 2 = 60$$

$$30 \times 20 = 600$$

0が0個

0が1個

0が2個

If the 3×2 is the same, we put 0 as many as the number of 0.



Example

Multiply.

$30 \times 20 = 600$



Exercise

Multiply.

① $9 \times 30 =$

② $3 \times 50 =$

③ $6 \times 80 =$

④ $4 \times 70 =$

⑤ $22 \times 30 =$

⑥ $38 \times 20 =$

⑦ $12 \times 50 =$

⑧ $27 \times 20 =$

⑨ $32 \times 40 =$

⑩ $53 \times 30 =$

⑪ $30 \times 30 =$

⑫ $20 \times 40 =$

⑬ $20 \times 50 =$

⑭ $60 \times 20 =$

⑮ $40 \times 30 =$

⑯ $30 \times 70 =$



Let's find the answer of 12×23 .

$$12 \times 23 = \boxed{}$$

Multiplication of big numbers.



Let's split the 23 into two numbers.

t	o
2	3

Split 23 into the numbers of "t" and "o".

$$\begin{array}{r}
 12 \times 23 \left\{ \begin{array}{l} 12 \times \boxed{20} = \boxed{} \\ 12 \times \boxed{3} = \boxed{} \end{array} \right. \\
 \hline
 \text{In total } \boxed{}
 \end{array}$$



$$\begin{array}{r}
 12 \times 23 \left\{ \begin{array}{l} 12 \times \boxed{20} = \boxed{240} \\ 12 \times \boxed{3} = \boxed{36} \end{array} \right. \\
 \hline
 \text{In total } \boxed{276}
 \end{array}$$



$$12 \times 23 = \boxed{276}$$

We can multiply even if the number of the bottom of multiplication is bigger by splitting the number separately by their places.

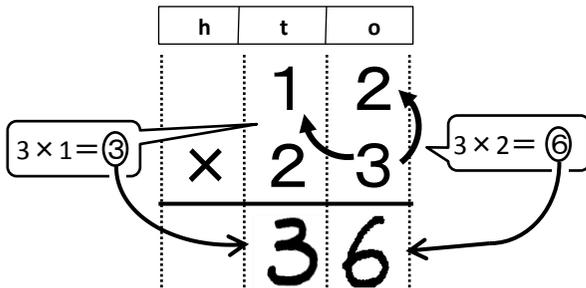




Let's multiply 12×23 by vertical method.

$$12 \times 23$$

Start multiplying from the numbers align to “o”.

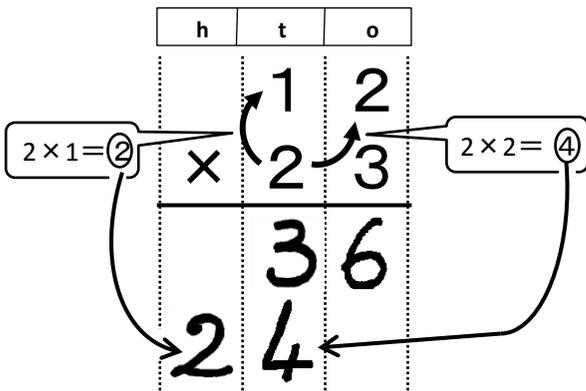


The multiplication of “o” is 12×3 , so they are $3 \times 2 = 6$ and $3 \times 1 = 3$ sets of 10.



We write the multiplication of “t” align to “t”.

Multiply the numbers align to “t”.



We have $2 \times 1 = 2$ sets of 100 and $2 \times 2 = 4$ sets of 10 at “t”.

"o" means ●, "t" means × "h" means ○.



Let's go on the calculation.

$$12 \times 23$$

Add the numbers of the top and bottom to get the answer.

	h	t	o
		1	2
×	2	3	
<hr/>			
		3	6
+	2	4	
<hr/>			
	2	7	6



In a vertical multiplication, we calculate each places separately and add later.

$$\begin{array}{r} 12 \\ \times 23 \\ \hline 6 \\ 30 \\ 40 \\ +200 \\ \hline 276 \end{array}$$

If we write separately by places, we can find out the answer is made of $6 + 30 + 40 + 200$.

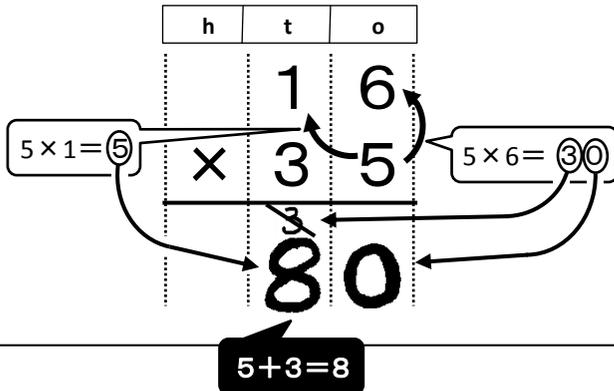




Let's multiply 16×35 by vertical method.

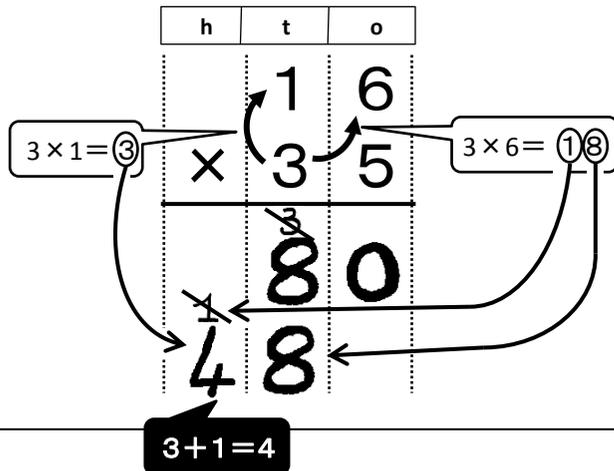
$$16 \times 35$$

Start multiplying from the numbers align to “o”.



The multiplication of “o” is 16×5 , so they are $5 \times 2 = 6$ and $5 \times 1 = 5$ sets of ⑩.

Multiply the numbers align to “t”.



The multiplication of “t” is 16×30 , so they are $3 \times 6 = 18$ sets of ⑩ and $3 \times 1 = 3$ sets of ①00.

“o” means ●, “t” means × “h” means ○.



Let's go on the calculation.

$$16 \times 35$$

Add the numbers of the top and bottom to get the answer.

	h	t	o
		1	6
×		3	5
<hr/>			
	1	8	0
+	4	8	
<hr/>			
	5	6	0

We do not forget the number we have carried by writing it in small size.

16
× 35
<hr/>
30
50
180
+300
<hr/>
560

If we write separately by places, we can find out the answers is made of 30 + 50 + 180 + 300.



Example

Multiply.

$$16 \times 35$$

h	t	o
	1	6
×	3	5

+

16 × 5

16 × 30



$$16 \times 35$$

h	t	o
	1	6
×	3	5

+

16 × 5

16 × 30

5 6 0



Good!

Exercise

Multiply.

① 12 × 32

h	t	o
	1	2
×	3	2

+

12 × 2

12 × 30

② 21 × 23

h	t	o
	2	1
×	2	3

+

21 × 3

21 × 20

③ 31 × 32

h	t	o
	3	1
×	3	2

+

31 × 2

31 × 30

④ 11 × 63

h	t	o
	1	1
×	6	3

+

11 × 3

11 × 60

⑤ 15 × 21

h	t	o
	1	5
×	2	1

+

15 × 2

15 × 20

⑥ 41 × 12

h	t	o
	4	1
×	1	2

+

41 × 2

41 × 10

Exercise Multiply.

⑦ 13×54

h	t	o
---	---	---

	13	
×	54	
+		

13×4

13×50

⑧ 14×46

h	t	o
---	---	---

	14	
×	46	
+		

14×6

14×40

⑨ 28×23

h	t	o
---	---	---

	28	
×	23	
+		

28×3

28×20

⑩ 37×12

h	t	o
---	---	---

	37	
×	12	
+		

37×2

37×10

⑪ 12×45

h	t	o
---	---	---

	12	
×	45	
+		

12×5

12×40

⑫ 19×34

h	t	o
---	---	---

	19	
×	34	
+		

19×4

19×30

⑬ 27×23

h	t	o
---	---	---

	27	
×	23	
+		

27×3

27×20

⑭ 29×22

h	t	o
---	---	---

	29	
×	22	
+		

29×2

29×20

⑮ 46×12

h	t	o
---	---	---

	46	
×	12	
+		

46×2

46×10

Example

Multiply.

$$16 \times 35$$

h	t	o
	1	6
×	3	5

$$+$$



$$16 \times 35$$

h	t	o
	1	6
×	3	5

$$+$$

	8	0
1	4	8
5	6	0



Good!



Exercise

Multiply.

① 23×13

h	t	o
---	---	---

	2	3
×	1	3

$$+$$

② 41×21

h	t	o
---	---	---

	4	1
×	2	1

$$+$$

③ 32×21

h	t	o
---	---	---

	3	2
×	2	1

$$+$$

④ 11×52

h	t	o
---	---	---

	1	1
×	5	2

$$+$$

⑤ 16×25

	1	6
×	2	5

$$+$$

⑥ 14×37

	1	4
×	3	7

$$+$$

⑦ 39×12

	3	9
×	1	2

$$+$$

⑧ 12×48

	1	2
×	4	8

$$+$$

Example

Multiply. Do not forget to write "×" and "+".

16×35

h	t	o
---	---	---

	×		
<hr/>			
+			
<hr/>			



16×35

h	t	o
---	---	---

	×	1	6
		3	5
<hr/>			
	+	1	8
		4	8
		0	0
<hr/>			
		5	6
		0	0

Do not forget!



Good!

Exercise

Multiply. Do not forget to write "×" and "+".

① 22×31

h	t	o
---	---	---

<hr/>			
<hr/>			

② 12×24

h	t	o
---	---	---

<hr/>			
<hr/>			

③ 33×21

h	t	o
---	---	---

<hr/>			
<hr/>			

Exercise

Multiply. Do not forget to write "×" and "+".

④ 12×43

h	t	o
---	---	---

⑤ 24×21

h	t	o
---	---	---

⑥ 25×23

h	t	o
---	---	---

⑦ 14×25

h	t	o
---	---	---

⑧ 18×34

h	t	o
---	---	---

⑨ 29×23

h	t	o
---	---	---

Exercise

Multiply. Do not forget to write "×" and "+".

⑩ 28×13

h	t	o
---	---	---

⑪ 17×42

h	t	o
---	---	---

⑫ 27×23

h	t	o
---	---	---

⑬ 23×34

⑭ 15×35

⑮ 47×12

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$32 \times 76$$

Start multiplying from the numbers at “o”.

th	h	t	o
		3	2
	×	7	6
<hr/>			
		1	9
			2

$$18 + 1 = 19$$

The multiplication of “o” is 32×6 , so they are $6 \times 2 = 12$ and 6×3 sets of (10).



Multiply the numbers align to “t”.

th	h	t	o
		3	2
	×	7	6
<hr/>			
		1	9
			2
		2	2
			4

We start writing at “t” to align with the place of 7.

$$21 + 1 = 22$$

The multiplication at “t” is 32×70 , so we have $7 \times 2 = 14$ sets of (10) at “t” and $7 \times 3 = 21$ sets of (100).



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's go on the calculation.

$$32 \times 76$$

Add the numbers of the top and bottom to get the answer.

	th	h	t	o
			3	2
		×	7	6
			¹ 1	¹ 9
			2	4
+	2	2	4	
	2	4	3	2

$$\begin{array}{r}
 32 \\
 \times 76 \\
 \hline
 12 \\
 180 \\
 140 \\
 +2100 \\
 \hline
 2432
 \end{array}$$

If we write separately by places, we can find out the answer is made of $12 + 180 + 140 + 2100$.



Example Multiply.

th	h	t	o
		3	2
	×	7	6
<hr/>			
+			
<hr/>			

32 × 6

32 × 70



th	h	t	o
		3	2
	×	7	6
<hr/>			
	1	9	2
	1	9	2
+	2	2	4
<hr/>			
	2	4	3
			2

32 × 6

32 × 70



Exercise Multiply.

① 17 × 86

th	h	t	o
		1	7
	×	8	6
<hr/>			
+			
<hr/>			

17 × 6

17 × 80

② 39 × 56

th	h	t	o
		3	9
	×	5	6
<hr/>			
+			
<hr/>			

39 × 6

39 × 50

③ 25 × 64

th	h	t	o
		2	5
	×	6	4
<hr/>			
+			
<hr/>			

25 × 4

25 × 60

④ 48 × 93

th	h	t	o
		4	8
	×	9	3
<hr/>			
+			
<hr/>			

48 × 3

48 × 90

Exercise Multiply.

⑤ 47×83

th	h	t	o
		4	7
	×	8	3
<hr/>			
<hr/>			
<hr/>			

47×3

47×80

+

⑥ 23×76

th	h	t	o
		2	3
	×	7	6
<hr/>			
<hr/>			
<hr/>			

23×6

23×70

+

⑦ 35×57

th	h	t	o
		3	5
	×	5	7
<hr/>			
<hr/>			
<hr/>			

35×7

35×50

+

⑧ 68×34

th	h	t	o
		6	8
	×	3	4
<hr/>			
<hr/>			
<hr/>			

68×4

68×30

+

⑨ 74×36

th	h	t	o
		7	4
	×	3	6
<hr/>			
<hr/>			
<hr/>			

74×6

74×30

+

⑩ 81×49

th	h	t	o
		8	1
	×	4	9
<hr/>			
<hr/>			
<hr/>			

81×9

81×40

+

Example Multiply.

$$32 \times 76$$

th	h	t	o
		3	2
	×	7	6

$$+$$



$$32 \times 76$$

th	h	t	o
		3	2
	×	7	6

$$\begin{array}{r}
 11 \\
 \times 224 \\
 \hline
 2432
 \end{array}$$



Good!

Exercise Multiply.

① 24×86

th	h	t	o
		2	4
	×	8	6

$$+$$

② 43×63

th	h	t	o
		4	3
	×	6	3

$$+$$

③ 54×62

th	h	t	o
		5	4
	×	6	2

$$+$$

④ 87×46

		8	7
	×	4	6

$$+$$

⑤ 52×34

		5	2
	×	3	4

$$+$$

⑥ 68×99

		6	8
	×	9	9

$$+$$

Example Multiply. Do not forget to write "×" and "+".

$$32 \times 76$$

th	h	t	o
----	---	---	---

	×		
+			

$$32 \times 76$$

th	h	t	o
----	---	---	---

	×	32	
		76	
	1	×	
	1	92	
+	2	24	
	2	432	



Do not forget!!



Good!

Exercise Multiply. Do not forget to write "×" and "+".

① 37×54

th	h	t	o
----	---	---	---

② 46×67

th	h	t	o
----	---	---	---

③ 52×28

th	h	t	o
----	---	---	---

Exercise

Multiply. Do not forget to write "×" and "+".

④ 44×65

th	h	t	o
----	---	---	---

⑤ 76×34

th	h	t	o
----	---	---	---

⑥ 86×49

th	h	t	o
----	---	---	---

⑦ 62×25

th	h	t	o
----	---	---	---

⑧ 38×34

th	h	t	o
----	---	---	---

⑨ 79×93

th	h	t	o
----	---	---	---

Exercise

Multiply. Do not forget to write "×" and "+".

⑩ 28×84

th	h	t	o
----	---	---	---

⑪ 67×42

th	h	t	o
----	---	---	---

⑫ 77×23

th	h	t	o
----	---	---	---

⑬ 53×94

⑭ 75×35

⑮ 47×68

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$218 \times 24$$

Start multiplying from the numbers align to “o”.

th	h	t	o
	2	1	8
×		2	4
<hr/>			
	8	7	2

$$4 + 3 = 7$$



The multiplication at “o” is 218×4 , so they are $4 \times 8 = 32$, $4 \times 1 = 4$ at sets of 10 and $4 \times 2 = 8$ sets of 100.

Multiply the numbers align to “t”.

th	h	t	o
	2	1	8
×		2	4
<hr/>			
	8	7	2
	4	3	6

We start writing at “t” to align with the place of 2.

$$2 + 1 = 3$$



The multiplication at “t” is 218×20 , so we have $2 \times 8 = 16$ sets of 10, $2 \times 1 = 2$ sets of 100 and $2 \times 2 = 4$ sets of 1000.

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's go on the calculation.

$$218 \times 24$$

Add the numbers of top and bottom to get the answer.

	th	h	t	o
		2	1	8
×			2	4
		¹ 8	3 7	2
+	¹ 4	1 3	6	
	5	2	3	2



Even if the numbers become big, we can find out the answer by calculating separately by places.

$$\begin{array}{r}
 218 \\
 \times 24 \\
 \hline
 32 \leftarrow 4 \times 8 \\
 40 \leftarrow 4 \times 10 \\
 800 \leftarrow 4 \times 200 \\
 160 \leftarrow 20 \times 8 \\
 200 \leftarrow 20 \times 10 \\
 +4000 \leftarrow 20 \times 200 \\
 \hline
 5232
 \end{array}$$

If we write separately by places, we can find out the answer is made of $32 + 40 + 800 + 160 + 200 + 4000$.



Example Multiply.

th	h	t	o
	2	1	8
×		2	4
<hr/>			
+			
<hr/>			

218 × 4

218 × 20



th	h	t	o
	2	1	8
×		2	4
<hr/>			
	8	7	2
+	4	3	6
<hr/>			
	5	2	3
			2

218 × 4

218 × 20

Good!

Exercise Multiply.

① 175 × 36

th	h	t	o
	1	7	5
×		3	6
<hr/>			
+			
<hr/>			

175 × 6

175 × 30

② 239 × 28

th	h	t	o
	2	3	9
×		2	8
<hr/>			
+			
<hr/>			

239 × 8

239 × 20

③ 312 × 13

th	h	t	o
	3	1	2
×		1	3
<hr/>			
+			
<hr/>			

312 × 3

312 × 10

④ 123 × 39

th	h	t	o
	1	2	3
×		3	9
<hr/>			
+			
<hr/>			

123 × 9

123 × 30

Exercise Multiply.

⑤ 141×52

th	h	t	o
	1	4	1
×		5	2
<hr/>			
+			
<hr/>			

141 × 2

141 × 50

⑥ 163×47

th	h	t	o
	1	6	3
×		4	7
<hr/>			
+			
<hr/>			

163 × 7

163 × 40

⑦ 213×19

th	h	t	o
	2	1	3
×		1	9
<hr/>			
+			
<hr/>			

213 × 9

213 × 10

⑧ 422×11

th	h	t	o
	4	2	2
×		1	2
<hr/>			
+			
<hr/>			

422 × 2

422 × 10

⑨ 314×26

th	h	t	o
	3	1	4
×		2	6
<hr/>			
+			
<hr/>			

314 × 6

314 × 20

⑩ 225×34

th	h	t	o
	2	2	5
×		3	4
<hr/>			
+			
<hr/>			

225 × 4

225 × 30

Example Multiply.

	th	h	t	o
		2	1	8
×			2	4
<hr/>				
+				
<hr/>				



	th	h	t	o
		2	1	8
×			2	4
<hr/>				
		¹ 8	⁸ 7	2
+	¹ 4	3	6	
<hr/>				
	5	2	3	2



Good!

Exercise Multiply.

① 112 × 47

	th	h	t	o
		1	1	2
×			4	7
<hr/>				
+				
<hr/>				

② 122 × 63

	th	h	t	o
		1	2	2
×			6	3
<hr/>				
+				
<hr/>				

③ 332 × 21

	th	h	t	o
		3	3	2
×			2	1
<hr/>				
+				
<hr/>				

④ 122 × 49

	th	h	t	o
		1	2	2
×		1	4	9
<hr/>				
+				
<hr/>				

⑤ 223 × 36

	th	h	t	o
		2	2	3
×		1	3	6
<hr/>				
+				
<hr/>				

⑥ 246 × 27

	th	h	t	o
		2	4	6
×			2	7
<hr/>				
+				
<hr/>				

Example Multiply. Do not forget to write "×" and "+".

218×24

th	h	t	o
----	---	---	---

×			
+			

218×24

th	h	t	o
----	---	---	---

	2	1	8
×	2	4	
	1	8	7
	8	7	2
+	1	3	6
	4	3	6
	5	2	3
	2	3	2



Do not forget!!



Good!

Exercise Multiply. Do not forget to write "×" and "+".

① 122×38

th	h	t	o
----	---	---	---

② 216×24

th	h	t	o
----	---	---	---

③ 312×31

th	h	t	o
----	---	---	---

Exercise

Multiply. Do not forget to write "×" and "+".

④ 123×32

th	h	t	o
----	---	---	---

⑤ 238×34

th	h	t	o
----	---	---	---

⑥ 187×31

th	h	t	o
----	---	---	---

⑦ 323×12

th	h	t	o
----	---	---	---

⑧ 185×54

th	h	t	o
----	---	---	---

⑨ 492×13

th	h	t	o
----	---	---	---

Exercise

Multiply. Do not forget to write “×” and “+”.

⑩ 129×67

th	h	t	o
----	---	---	---

⑪ 136×29

th	h	t	o
----	---	---	---

⑫ 326×23

th	h	t	o
----	---	---	---

⑬ 273×28

⑭ 312×22

⑮ 517×11

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$324 \times 63$$

Start multiplying from the numbers align to "o".

th	h	t	o
	3	2	4
×		6	3
<hr/>			
	9	7	2

$$6+1=7$$



The multiplication at "o" is 324×3 , so they are $3 \times 4 = 12$, $3 \times 2 = 6$ at sets of (10) and $3 \times 3 = 9$ sets of (100).

Multiply the numbers align to "t".

th	h	t	o
	3	2	4
×		6	3
<hr/>			
	9	7	2
	1	9	4
		4	4

$$18+1=19$$

$$12+2=14$$

We start writing at "t" to align with the place of 6.



The multiplication at "t" is 324×60 , so we have $6 \times 4 = 24$ sets of (10), $6 \times 2 = 12$ sets of (100) and $6 \times 3 = 18$ sets of (1000).

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$324 \times 63$$

Start multiplying from the numbers align to "o".

	th	h	t	o
		3	2	4
	×		6	3
		¹ 9	¹ 7	2
+	¹ 1	¹ 9	² 4	4
		2	0	4
			1	2

$$\begin{array}{r}
 324 \\
 \times 63 \\
 \hline
 12 \leftarrow 3 \times 4 \\
 60 \leftarrow 3 \times 20 \\
 900 \leftarrow 3 \times 300 \\
 240 \leftarrow 60 \times 4 \\
 1200 \leftarrow 60 \times 20 \\
 +18000 \leftarrow 60 \times 300 \\
 \hline
 20412
 \end{array}$$

If we write separately by places, we can find out the answer is made of $12 + 60 + 900 + 240 + 1200 + 18000$.



Example Multiply.

	th	h	t	o
		3	2	4
	×		6	3
+				

324 × 3

324 × 60



	th	h	t	o
		3	2	4
	×		6	3
+	¹ 1	¹ 9	¹ 9	¹ 7
			4	4
	2	0	4	1
				2

324 × 3

324 × 60



Exercise Multiply.

① 375 × 46

	th	h	t	o
		3	7	5
	×		4	6
+				

375 × 6

375 × 40

② 239 × 58

	th	h	t	o
		2	3	9
	×		5	8
+				

239 × 8

239 × 50

③ 412 × 63

	th	h	t	o
		4	1	2
	×		6	3
+				

412 × 3

412 × 60

④ 523 × 39

	th	h	t	o
		5	2	3
	×		3	9
+				

523 × 9

523 × 30

Example Multiply.

$$324 \times 63$$

	th	h	t	o
		3	2	4
×		6	3	



$$324 \times 63$$

	th	h	t	o
		3	2	4
×		6	3	



Good!

+				
<hr/>				

+	¹ 1	¹ 9	¹ 9	² 7	2
<hr/>					
	2	0	4	1	2



Exercise Multiply.

① 176×64

	th	h	t	o
		1	7	6
×		6	4	

② 286×97

	th	h	t	o
		2	8	6
×		9	7	

+				
<hr/>				

+				
<hr/>				

③ 367×32

	th	h	t	o
		3	6	7
×		3	2	

④ 482×43

	th	h	t	o
		4	8	2
×		1	4	3

+				
<hr/>				

+				
<hr/>				

Example Multiply. Do not forget to write "×" and "+".

324×63

	th	h	t	o
--	----	---	---	---

		×						

+								

324×63

	th	h	t	o
--	----	---	---	---

Do not forget!!



		×			3	2	4	
					6	3		

					¹ 9	[×] 7	2	
					¹ 1	[×] 4	4	

+	¹ 1	[×] 9	[×] 4	4				

	2	0	4	1	2			



Exercise Multiply. Do not forget to write "×" and "+".

① 132×96

	th	h	t	o
--	----	---	---	---

② 153×72

	th	h	t	o
--	----	---	---	---

③ 265×45

	th	h	t	o
--	----	---	---	---

Exercise

Multiply. Do not forget to write "×" and "+".

④ 389×47

	th	h	t	o
--	----	---	---	---

⑤ 428×75

	th	h	t	o
--	----	---	---	---

⑥ 459×29

	th	h	t	o
--	----	---	---	---

⑦ 576×38

	th	h	t	o
--	----	---	---	---

⑧ 492×54

	th	h	t	o
--	----	---	---	---

⑨ 517×43

	th	h	t	o
--	----	---	---	---

⑩ 459×65

⑪ 528×79

⑫ 748×15

“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

$$203 \times 54$$

Start multiplying from the numbers align to “o”.

	th	h	t	o
		2	0	3
×			5	4
<hr/>				
		8	1	2

$$0 + 1 = 1$$



The multiplication at “o” is 203×4 , so they are $4 \times 3 = 12$ at 1, $4 \times 0 = 0$ at sets of (10) and $4 \times 2 = 8$ sets of (100).

Multiply the numbers align to “t”.

	th	h	t	o
		2	0	3
×			5	4
<hr/>				
		8	1	2
	1	0	1	5

We start writing at “t” to align with the place of 5.

$$0 + 1 = 1$$



The multiplication at “t” is 203×50 , so we have 5×3 sets of (10), 5×0 sets of (100) and 5×2 sets of (1000).

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's go on the calculation.

$$203 \times 54$$

Add the numbers
of top and bottom
to get the answer.

	th	h	t	o
		2	0	3
	×		5	4
		8	1	2
+	1	0	1	5
	1	0	9	6
				2

$$\begin{array}{r}
 203 \\
 \times 54 \\
 \hline
 12 \leftarrow 4 \times 3 \\
 0 \leftarrow 4 \times 0 \\
 800 \leftarrow 4 \times 200 \\
 150 \leftarrow 50 \times 3 \\
 0 \leftarrow 50 \times 0 \\
 +10000 \leftarrow 50 \times 200 \\
 \hline
 10962
 \end{array}$$

If we write separately by places,
we can find out the answer is
made of
 $12 + 0 + 800 + 150 + 0 + 10000$.



Example Multiply.

	th	h	t	o
		2	0	3
×		5	4	
<hr/>				
+				
<hr/>				

203 × 4

203 × 50



	th	h	t	o
		2	0	3
×		5	4	
<hr/>				
		8	1	2
+	1	0	1	5
<hr/>				
	1	0	9	6
				2

203 × 4

203 × 50

Good!

Exercise Multiply.

① 503 × 64

	th	h	t	o
		5	0	3
×		6	4	
<hr/>				
+				
<hr/>				

503 × 4

503 × 60

② 309 × 85

	th	h	t	o
		3	0	9
×		8	5	
<hr/>				
+				
<hr/>				

309 × 5

309 × 80

③ 402 × 59

	th	h	t	o
		4	0	2
×		5	9	
<hr/>				
+				
<hr/>				

402 × 9

402 × 50

④ 207 × 96

	th	h	t	o
		2	0	7
×		9	6	
<hr/>				
+				
<hr/>				

207 × 6

207 × 90

Example Multiply.

$$203 \times 54$$

	th	h	t	o
		2	0	3
×		5	4	
<hr/>				
+				
<hr/>				



$$203 \times 54$$

	th	h	t	o
		2	0	3
×		5	4	
<hr/>				
		8	1	2
+	1	0	1	5
<hr/>				
	1	0	9	6
				2



Good!



Exercise Multiply.

① 307×52

	th	h	t	o
		3	0	7
×		5	2	
<hr/>				
+				
<hr/>				

② 407×64

	th	h	t	o
		4	0	7
×		6	4	
<hr/>				
+				
<hr/>				

③ 708×15

	th	h	t	o
		7	0	8
×		1	5	
<hr/>				
+				
<hr/>				

④ 506×38

	th	h	t	o
		5	0	6
×		3	8	
<hr/>				
+				
<hr/>				

Example Multiply. Do not forget to write "×" and "+".

203×54

	th	h	t	o
--	----	---	---	---

		×			

+					

203×54

	th	h	t	o
--	----	---	---	---

Do not forget!!

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



Exercise Multiply. Do not forget to write "×" and "+".

① 208×95

	th	h	t	o
--	----	---	---	---

② 503×76

	th	h	t	o
--	----	---	---	---

③ 602×54

	th	h	t	o
--	----	---	---	---

① 803×17

② 606×89

③ 508×43



Let's calculate this.

$$284 \times 376$$

Start multiplying from the numbers align to “o”.

	th	h	t	o
		2	8	4
×	3	7	6	
<hr/>				
	1	7	0	4

$$12 + 5 = 17$$

$$48 + 2 = 50$$

The multiplication at “o” is 284×6 , so we have $6 \times 4 = 24$ sets of ①, $6 \times 8 = 48$ sets of ⑩ and $6 \times 2 = 12$ sets of ①00.



Multiply the numbers align to “t”.

	th	h	t	o
		2	8	4
×	3	7	6	
<hr/>				
	1	7	0	4
	1	9	8	8

$$14 + 5 = 19$$

$$56 + 2 = 58$$

We start writing at “t” to align with the place of 2.

The multiplication at “t” is 284×70 , so we have $7 \times 4 = 28$ sets of ⑩, $7 \times 8 = 56$ sets of ①00 and $7 \times 2 = 14$ sets of ①000.



“o” means ●, “t” means ×, “h” means ○, “th” means □.



Let's calculate this.

284 × 376

Start multiplying from the numbers align to “o” .

	th	h	t	o
		2	8	4
×	3	7	6	
<hr/>				
		5	2	4
	1	7	0	
	5	2		
	8	8		
	1			
	8			
	1			
	5			
	1			
	2			

We start writing at “h” to align with the place of 3.

6+2=8

24+1=25



The multiplication at “h” is 284 × 300, so we have 3 × 4 = 12 sets of (100), 3 × 8 = 24 sets of (1000) and 3 × 2 = 6 sets of (10000).

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's go on the calculation.

$$284 \times 376$$

Start multiplying from the numbers align to "o".

		th	h	t	o
			2	8	4
		×	3	7	6
		1	5	2	
		1	7	0	4
	1	5	2		
	1	9	8	8	
	1	4			
+	8	5	2		
	1	0	6	7	8
					4

284	
× 376	
24	← 6 × 4
480	← 6 × 80
1200	← 6 × 200
280	← 70 × 4
5600	← 70 × 80
14000	← 70 × 200
1200	← 300 × 4
24000	← 300 × 80
+60000	← 300 × 200
106784	

If we write separately by places, we can find out the answer is made of
 $24 + 480 + 1200 + 280 + 5600 + 14000 + 1200 + 24000 + 60000$.



Exercise

Multiply. Do not forget to write “×” and “+”.

③ 258×345

		th	h	t	o
--	--	----	---	---	---

④ 289×647

		th	h	t	o
--	--	----	---	---	---

⑤ 358×275

		th	h	t	o
--	--	----	---	---	---

⑥ 549×129

		th	h	t	o
--	--	----	---	---	---

Exercise

Multiply. Do not forget to write “×” and “+”.

⑦ 374×638

		th	h	t	o
--	--	----	---	---	---

⑧ 657×714

		th	h	t	o
--	--	----	---	---	---

⑨ 473×854

⑩ 942×154

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's calculate this.

$$162 \times 308$$

Start multiplying from the numbers align to "o".

	th	h	t	o
		1	6	2
×	3	0	8	
<hr/>				
		1	2	9
				6

$$8 + 4 = 12$$

$$48 + 1 = 49$$



The multiplication at "o" is 162×8 , so they are $8 \times 2 = 16$ at ①, $8 \times 6 = 48$ at sets of ⑩ and $8 \times 1 = 8$ sets of ①00.

Multiply the numbers align to "t".

	th	h	t	o
		1	6	2
×	3	0	8	
<hr/>				
		1	2	9
				6
		0	0	0

We do not need to write 0 because adding 0 do not change the answer.



The multiplication at "t" is 162×0 . 0 multiplied by any number is 0.

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's go on the calculation.

$$162 \times 308$$

Multiply the numbers align to "h".

	th	h	t	o
		1	6	2
×		3	0	8
<hr/>				
		1	1	
		1	2	9
		1	1	
		4	8	6

We start writing at "h" to align with the place of 3.

$$3+1=4$$



The multiplication at "h" is 162×300 , so we have $3 \times 2 = 6$ sets of (100), $3 \times 6 = 18$ sets of (1000) and $3 \times 1 = 3$ sets of (10000).

"o" means ●, "t" means ×, "h" means ○, "th" means □.



Let's go on the calculation.

$$162 \times 308$$

Add the numbers
of top and bottom
to get the answer.

	th	h	t	o
		1	6	2
	×	3	0	8
		4	1	
		1	2	9
			6	
+	4	1		
	4	8	6	
	4	9	8	9
			6	

$$\begin{array}{r}
 162 \\
 \times 308 \\
 \hline
 16 \quad \leftarrow 8 \times 2 \\
 480 \quad \leftarrow 8 \times 60 \\
 800 \quad \leftarrow 8 \times 100 \\
 0 \quad \leftarrow 0 \times 2 \\
 0 \quad \leftarrow 0 \times 60 \\
 0 \quad \leftarrow 0 \times 100 \\
 600 \quad \leftarrow 300 \times 2 \\
 18000 \quad \leftarrow 300 \times 60 \\
 +30000 \quad \leftarrow 300 \times 100 \\
 \hline
 49896
 \end{array}$$

If we write separately by places,
we can find out the answer is
made of
 $16 + 480 + 800 + 0 + 0 + 0 + 600$
 $+ 18000 + 30000.$



Example Multiply.

$$162 \times 308$$

		th	h	t	o
			1	6	2
	×	3	0	8	

+



$$284 \times 376$$

		th	h	t	o
			1	6	2
	×	3	0	8	



Good!

+

			1	6	2
	×	3	0	8	
		4	8	6	
		4	9	8	9



Exercise Multiply.

① 623×206

		th	h	t	o
			6	2	3
	×	2	0	6	

+

② 379×108

		th	h	t	o
			3	7	9
	×	1	0	8	

+

Exercise

Multiply. Do not forget to write "×" and "+".

③ 354×209

		th	h	t	o
--	--	----	---	---	---

④ 673×405

		th	h	t	o
--	--	----	---	---	---

⑤ 257×608

⑥ 219×504



Let's find an effective way of calculating numbers with some 0.

Multiply non-zero numbers.

$$2400 \times 20$$

$$\begin{array}{r} 400 \\ \times 20 \\ \hline 48 \end{array}$$

We align the non-zero numbers vertically and calculate.



Write the same numbers of 0 as the numbers of question have.

$$\begin{array}{r} 400 \\ \times 20 \\ \hline 48000 \end{array}$$



2400×20 has two 0 and one 0, so we should write three 0 at the answer.

Take care of making these two types of mistakes.

$$30\ 070 \times 30$$

$$\begin{array}{r} 30\ 070 \\ \times 0 \\ \hline 9021\ 0000 \end{array}$$

The 0 between the numbers are different from the 0 at the bottom. The correct answer is 902 100.

$$120\ 000 \times 300$$

$$\begin{array}{r} 12\ 0000 \\ \times 300 \\ \hline 36\ 00000 \end{array}$$

Do not make mistakes in writing how many numbers after the 36. The correct answer is 36 000 000.



Example Multiply.

$$2400 \times 20$$

		2	4	0	0
				2	0

Example

Multiply.

$$2400 \times 20$$

		×					



$$2400 \times 20$$

		×	2	4	0	0	
			2	0			
			4	8	0	0	0



Good!



Exercise

Multiply.

① 3200×60

		×					

② 4900×70

		×					

③ 2700×520

		×					

④ 8300×260

		×					

⑤ 53000×80

⑥ 39000×500
