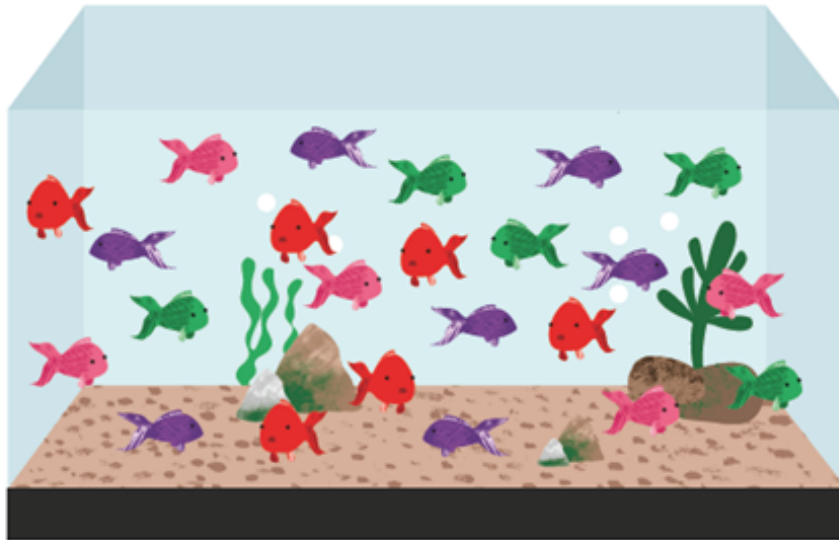


Multiplying with Regrouping

Lesson 4

In Focus



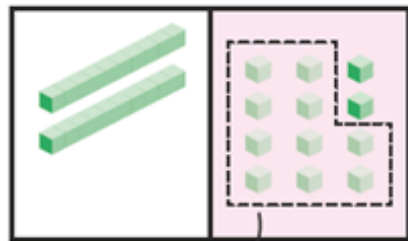
One tank has 23 fish.
How many fish are there in 4 tanks?

Use  to help you multiply.

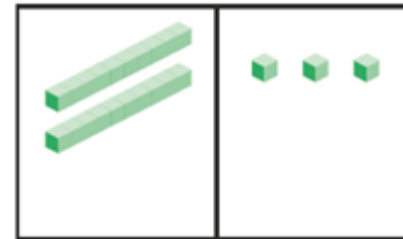


Let's Learn

- 1 There are 4 groups of 23 fish.
How do we multiply 23 by 4?

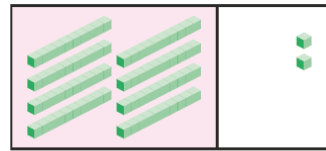


$3 \text{ ones} \times 4 = 12 \text{ ones}$
 $12 \text{ ones} = 1 \text{ ten } 2 \text{ ones}$



Step 1 Multiply the ones by 4.

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

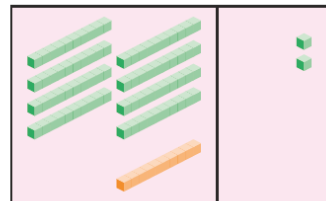


$2 \text{ tens} \times 4 = 8 \text{ tens}$



Step 2 Multiply the tens by 4.

	t	o
	2	3
\times		4
	1	2
	8	0



$12 + 80 = 92$



Step 3 Add the products.

	t	o
	2	3
\times		4
	1	2
$+$	8	0
	9	2

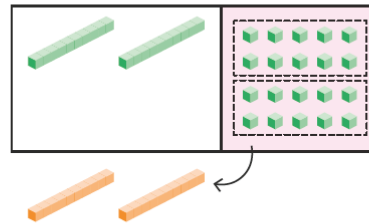
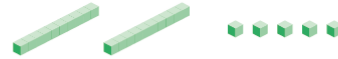
$23 \times 4 = 92$

There are 92 fish in 4 tanks.

- 2 Find the product of 25 and 4.

Method 1

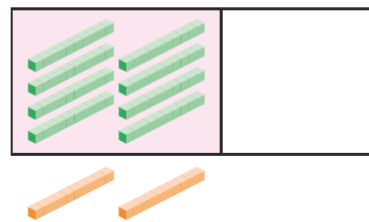
This is 25.



5 ones \times 4 = 20 ones
20 ones = 2 tens

Step 1 Multiply the ones by 4.

	t	o
	2	5
\times		4
<hr/>		
	2	0

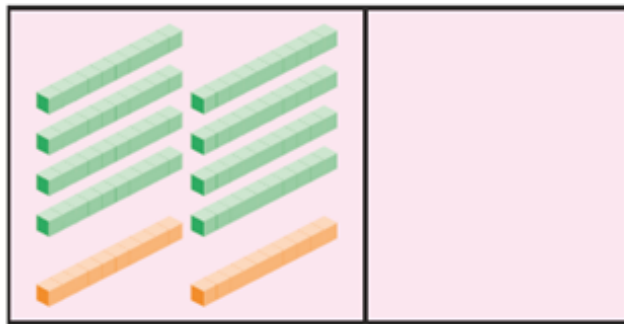


2 tens \times 4 = 8 tens

Step 2 Multiply the tens by 4.

	t	o
	2	5
\times		4
<hr/>		
	2	0
	8	0





$$25 \times 4 = 100$$

Method 2

$$25 \times 4 = 100$$



$$\begin{aligned} 25 + 25 &= 50 \\ 50 + 50 &= 100 \end{aligned}$$

Step 3 Add the products.

	h	t	o
		2	5
x			4
<hr/>			
		2	0
+		8	0
<hr/>			
	1	0	0
<hr/>			

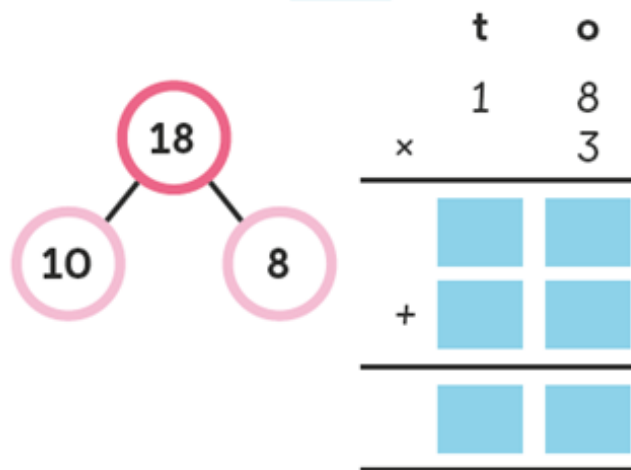


$$20 + 80 = 100$$

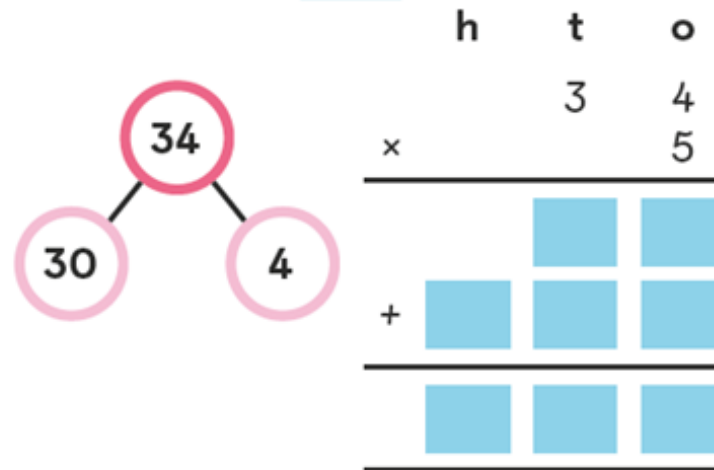
Guided Practice

1 Multiply.

(a) $18 \times 3 =$



(b) $34 \times 5 =$



2 Find the product of

(a) 29 and 4

(b) 8 and 16

(c) 57 and 2

Worksheet 4

Multiplying with Regrouping

Multiply.

(a) $65 \times 2 = \boxed{}$

	h	t	o
		6	5
x			2
<hr/>			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
+	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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<hr/>			

(b) $45 \times 3 = \boxed{}$

	h	t	o
		4	5
x			3
<hr/>			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
+	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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<hr/>			

(c) $38 \times 4 = \boxed{}$

	h	t	o
		3	8
x			4
<hr/>			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
+	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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<hr/>			

(d) $27 \times 8 = \boxed{}$

	h	t	o
		2	7
x			8
<hr/>			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
+	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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<hr/>			

Worksheet 4

Multiplying with Regrouping

Multiply.

(a) $65 \times 2 = 130$

	h	t	o
		6	5
x			2
<hr/>			
		1	0
+	1	2	0
<hr/>			
	1	3	0
<hr/>			

(b) $45 \times 3 = 135$

	h	t	o
		4	5
x			3
<hr/>			
		1	5
+	1	2	0
<hr/>			
	1	3	5
<hr/>			

(c) $38 \times 4 = 152$

	h	t	o
		3	8
x			4
<hr/>			
		3	2
+	1	2	0
<hr/>			
	1	5	2
<hr/>			

(d) $27 \times 8 = 216$

	h	t	o
		2	7
x			8
<hr/>			
		5	6
+	1	6	0
<hr/>			
	2	1	6
<hr/>			

True or false?

$$126 = 43 \times 3$$

Match the statements to the correct total.



Sasha

Twenty-one times five.



Yan

Thirty-two multiplied by four.



Ajit

Five groups of twenty-seven.

135

168

128

105

There are 24 pencils in a packet.
Mr Lund buys 8 packets.



How many pencils does Mr Lund have?

True or false?

$$126 = 43 \times 3$$

False, $43 \times 3 = 129$

There are 24 pencils in a packet.
Mr Lund buys 8 packets.



$$24 \times 8 = 192$$

How many pencils does Mr Lund have?

Match the statements to the correct total.



Sasha

Twenty-one times five.

105



Yan

Thirty-two multiplied by four.

128



Ajit

Five groups of twenty-seven.

135

1.) True or false?

$$126 = 43 \times 3$$

False, $43 \times 3 = 129$

2.) Chloe multiplies a 2-digit number by a 1-digit number. The total is 136.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Chloe used 34 and 4.

$$34 \times 4 = 136$$

Which numbers did she use?

3.) There are 24 pencils in a packet. Mr Lund buys 8 packets.



$$24 \times 8 = 192$$

How many pencils does Mr Lund have?

4.) Match the statements to the correct total.



Sasha



Yan



Ajit

Twenty-one times five.

105

Thirty-two multiplied by four.

128

Five groups of twenty-seven.

135

5.) Alex's teacher asks him to find the mistake so that he can correct it.

H T O

3 4

$$\begin{array}{r} \times \\ 126 \\ \hline 1 \end{array}$$

Find and explain the mistake to help Alex.

Alex has not added the ten he exchanged from the ones column.

The correct answer is 136.