Multiplying 2-Digit Numbers

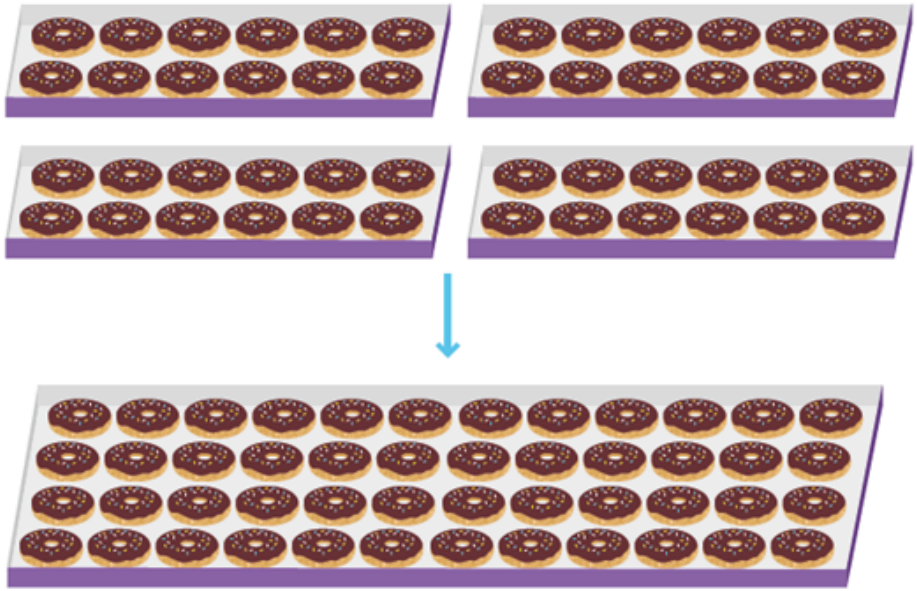
Lesson 2

In Focus

How many  are there in four boxes?

Think about how many doughnuts are in one box. How many boxes are there altogether?

Let's Learn



Method 1

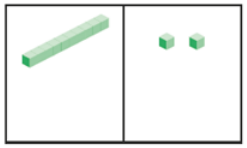
$12 + 12 + 12 + 12 = 48$

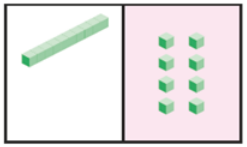
There are 48  in four boxes.

Method 2

$12 \times 4 =$ 

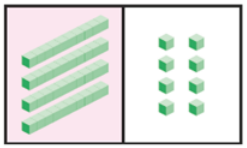
Multiply 12 by 4.





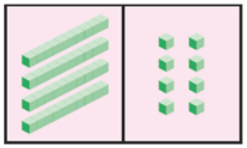
Step 1 Multiply the ones by 4.

2 ones × 4 = 8 ones



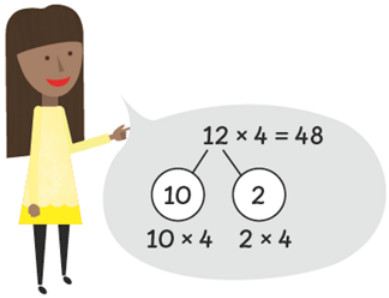
Step 2 Multiply the tens by 4.

1 ten × 4 = 4 tens



Step 3 2 ones × 4 = 8
1 ten × 4 = 40
12 × 4 = 8 + 40 = 48

There are 48  in four boxes.



Guided Practice

Multiply.

1. $20 \times 8 =$ ☐

20

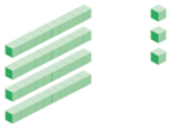
Can you use the method we have just practiced to help you?

Think about how the part-whole model can help you. How many tens and ones are there?

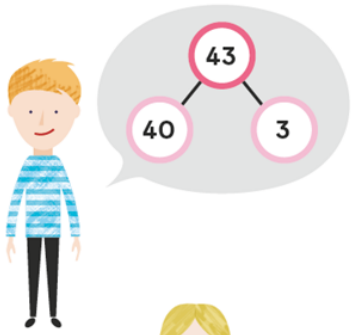
2. $21 \times 8 =$ ☐

20 1

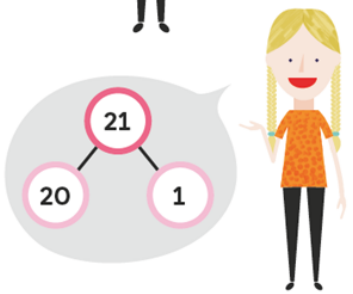
3. $43 \times 2 =$ ☐



40 3



4. $21 \times 4 =$ ☐



5. $32 \times 3 =$ ☐

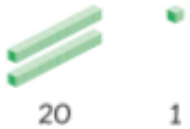
Complete Worksheet **2** • Page **117** – **118**

Guided Practice

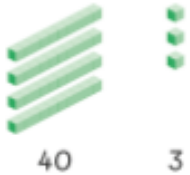
Multiply.

1. $20 \times 8 =$ 160

2. $21 \times 8 =$ 168

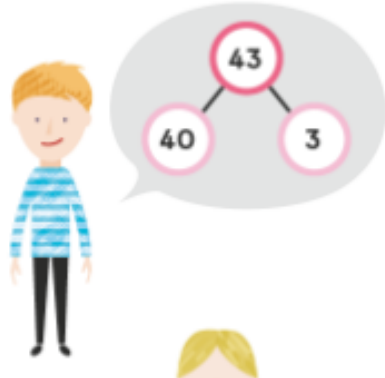


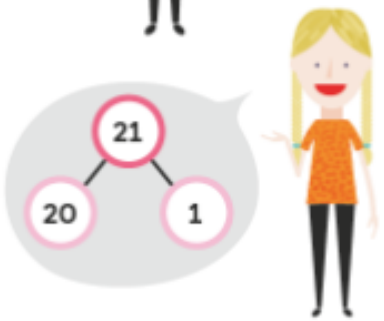
3. $43 \times 2 =$ 86



4. $21 \times 4 =$ 84

5. $32 \times 3 =$ 96





Worksheet 2

Use the pictures to help you. Think about what we have learnt about multiplication and addition.

Multiplying 2-Digit Numbers

1 Fill in the blanks.

(a)

12 × 3 = 12 + 12 + 12 = ☐

(b)

16 × 2 = ☐ + ☐ = ☐

(c)

21 × 4 = ☐ + ☐ + ☐ + ☐ = ☐

(d)

35 × 4 = ☐ + ☐ + ☐ + ☐ = ☐

2 Fill in the blanks.

(a) 15 × 3 = ☐

5 ones × 3 = ☐

1 ten × 3 = ☐

☐ + ☐ = ☐

(b) 26 × 8 = ☐

6 ones × 8 = ☐

2 tens × 8 = ☐

☐ + ☐ = ☐

(c) 32 × 4 = 2 × 4 + 30 × 4 = ☐

(d) 56 × 3 = ☐ × 3 + ☐ × 3 = ☐

(e) 8 × 24 = 8 × ☐ + 8 × ☐ = ☐

(f) 48 × 8 = ☐ × 8 + ☐ × 8 = ☐

Worksheet 2

Multiplying 2-Digit Numbers

1 Fill in the blanks.

(a) 

12 × 3 = 12 + 12 + 12 = 36

(b) 

16 × 2 = 16 + 16 = 32

(c) 

21 × 4 = 21 + 21 + 21 + 21 = 84

(d) 

35 × 4 = 35 + 35 + 35 + 35 = 140

2 Fill in the blanks.

(a) 15 × 3 = 45

5 ones × 3 = 15

1 ten × 3 = 30

15 + 30 = 45

(b) 26 × 8 = 208

6 ones × 8 = 48

2 tens × 8 = 160

48 + 160 = 208

(c) 32 × 4 = 2 × 4 + 30 × 4 = 128

(d) 56 × 3 = 6 × 3 + 50 × 3 = 168

(e) 8 × 24 = 8 × 4 + 8 × 20 = 192

(f) 48 × 8 = 8 × 8 + 40 × 8 = 384

Further Multiplication and Division Page 118

1) Alex completes the calculation:
43 x 2

Can you spot her mistake?

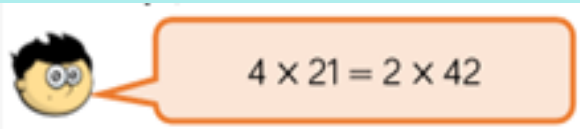
	T	O
	4	3
x		2
		6
+		8
	1	4

2) Teddy completes the same calculation as Alex.

Can you spot and explain his mistake?

	T	O
	4	3
x		2
8	0	6

3) Dexter says,



Is Dexter correct?

4) Jacob and Julia have solved the following multiplications.

Jacob

$$\begin{array}{r} 30 \\ \times\ 3 \\ \hline 90 \end{array}$$

Julia

$$\begin{array}{r} 31 \\ \times\ 2 \\ \hline 53 \end{array}$$

Are they both correct? Explain how you know.

5) Hamza is thinking of a number.

I multiplied a number by 4. The answer was 44.

What is Hamza's number? Explain how you know.

6) Create and solve a calculation using the digit cards below.

$$\begin{array}{r} \square\,3 \\ \times\ \square \\ \hline 3\,\square \\ \hline \end{array}$$

1) Alex completes the calculation:
43 x 2

Can you spot her mistake?

Alex has multiplied 4 by 2 rather than 40 by 2.

	T	O
	4	3
x		2
		6
+		8
	1	4

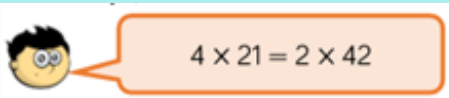
2) Teddy completes the same calculation as Alex.

Can you spot and explain his mistake?

	T	O
	4	3
x		2
8	0	6

Teddy has written 80 where he should have just put an 8 because he is multiplying 4 tens by 2 which is 8 tens. The answer should be 86.

3) Dexter says,



Is Dexter correct?

True. Both multiplications are equal to 84.
In the calculations one number has halved and one number has doubled.

4) Jacob and Julia have solved the following multiplications.

Jacob

$$\begin{array}{r} 30 \\ \times\ 3 \\ \hline 90 \end{array}$$

Julia

$$\begin{array}{r} 31 \\ \times\ 2 \\ \hline 53 \end{array}$$

Are they both correct? Explain how you know.

Jacob is correct. Julia is not correct because she has added the numbers together instead of multiplying them. 31 x 2 = 62.

Hamza is thinking of a number.

5)

I multiplied a number by 4. The answer was 44.

What is Hamza's number? Explain how you know.

Hamza's number is 11 because 4 x 11 = 44.

6) Create and solve a calculation using the digit cards below.

$$\begin{array}{r} 13 \\ \times\ 3 \\ \hline 39 \end{array}$$