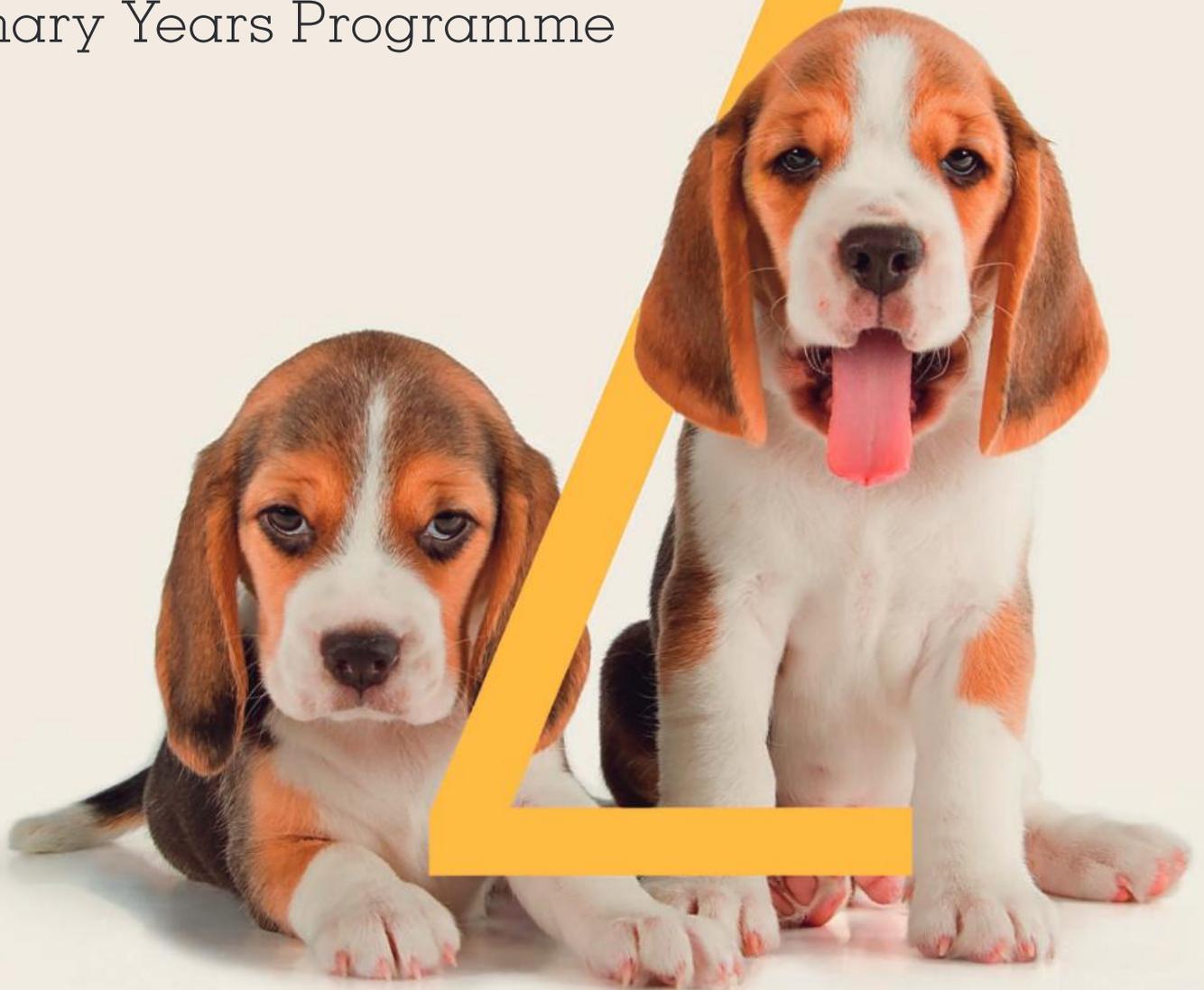


# Oxford **Mathematics**

Primary Years Programme



Annie Facchinetti

**OXFORD**  
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Published in Australia by  
Oxford University Press  
Level 8, 737 Bourke Street, Docklands, Victoria 3008, Australia.

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First published 2019

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ISBN 978 0 19 031221 3

Edited by Laura Davies  
Illustrated by Ben Whitehouse  
Typeset by Newgen KnowledgeWorks Pvt. Ltd., Chennai, India  
Proofread by Vanessa Lanaway, Red Dot Scribble  
Printed in China by Leo Paper Products Ltd

**Acknowledgements**

Cover and internal: Shutterstock

## To the teacher

*Oxford Mathematics PYP* provides students with guided and independent work to support mathematical skills and understandings, as well as opportunities for problem-solving in real-world contexts. Teachers will find the supporting materials clear, comprehensive and easy to use. While the series offers complete coverage of the PYP mathematics scope and sequence, teachers can also use the topics that fit well with other areas of work to support student learning across the PYP curriculum.

## Student Books

Each topic features:

- **Guided practice** – a worked example of the concept, followed by the opportunity for students to practise, supported by careful scaffolding
- **Independent practice** – further opportunities for students to consolidate their understanding of the concept in different ways, with a decreasing amount of scaffolding
- **Extended practice** – the opportunity for students to apply their learning and extend their understanding in new contexts.

## Differentiation

Differentiation is key to ensuring that every student can access the curriculum at their point of need. In addition to the gradual release approach of the Student Books, the Teacher Books help teachers to choose appropriate pathways for students, and provide activities for students who require extra support or extension.

# Oxford Mathematics

Primary Years Programme

# 2

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# UNIT 1: TOPIC 1

## Place value

This is a one.



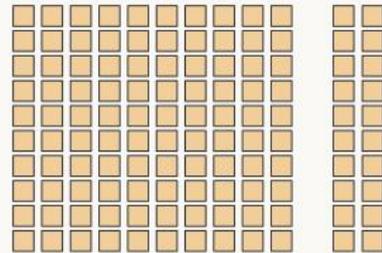
This is 12 ones

OR 1 ten and 2 ones.



This is 120 ones

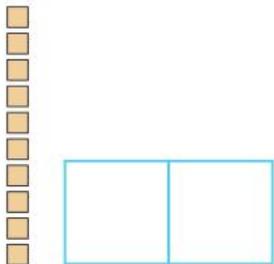
OR 1 hundred and 2 tens.



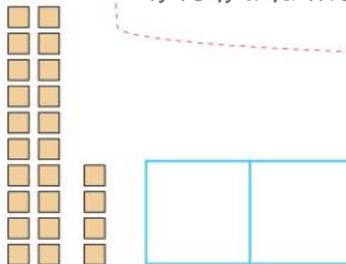
### Guided practice

1 How many?

a



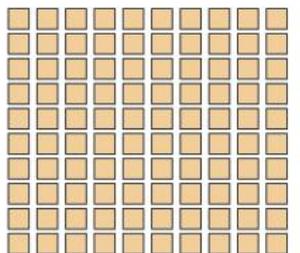
b



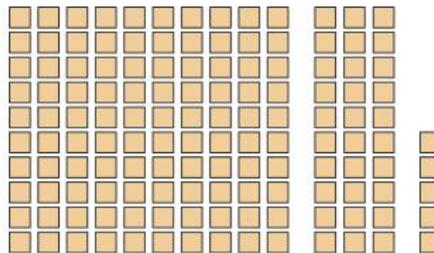
In a 3-digit number, the first digit is hundreds, the second is tens and the third is ones.



c

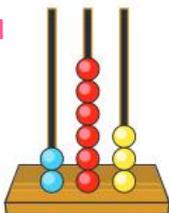


d

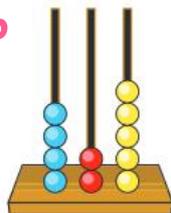


2 Write the numbers.

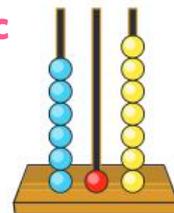
a



b

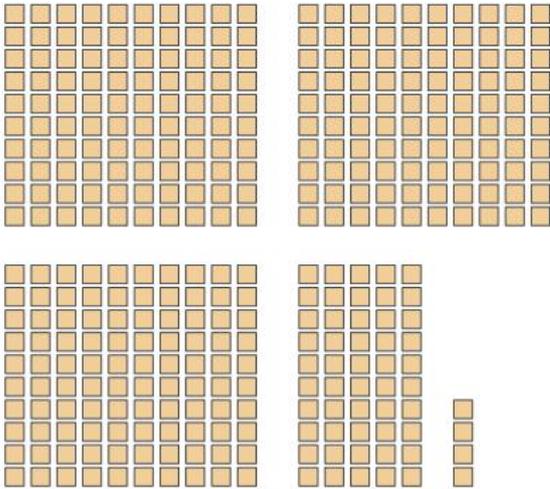


c



## Independent practice

1 This is 354.

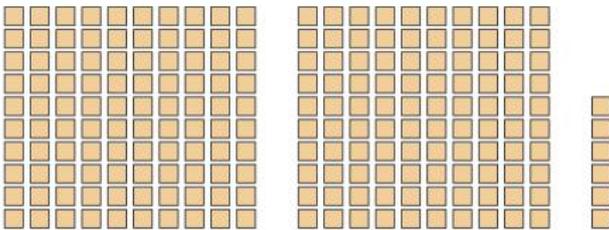


hundreds

tens

ones

2 This is 206.

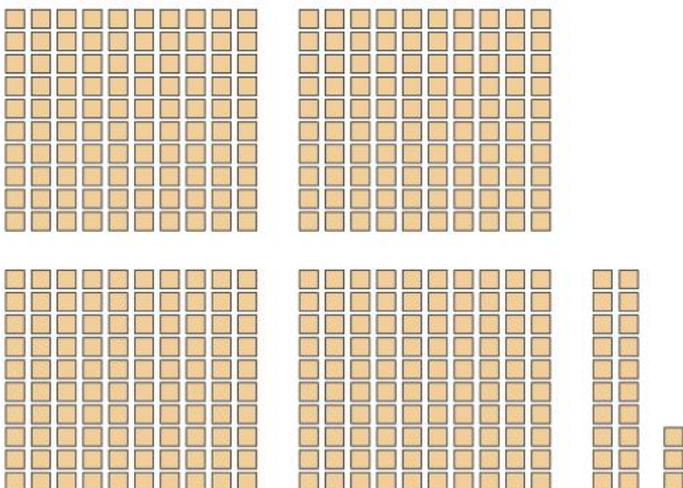


hundreds

tens

ones

3 This is 423.



hundreds

tens

ones

4

a In 849, the 9 is in the ones place. How many:

tens?

hundreds?

b In 347, the 4 is in the tens place. How many:

ones?

hundreds?

c In 413, how many:

hundreds?

tens?

ones?

d In 508, how many:

tens?

hundreds?

ones?

5 Draw 216.

How many different ways  
can you rename 216?



## Extended practice

1



Use the digits to make:

a the biggest number.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

b the smallest number.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

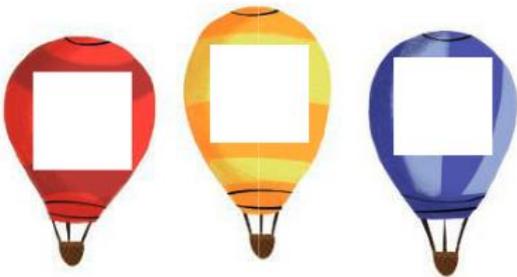
c the biggest number with 8 in the ones place.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

d 2-digit numbers.

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

2 Write a digit on each balloon.



Use the digits to make:

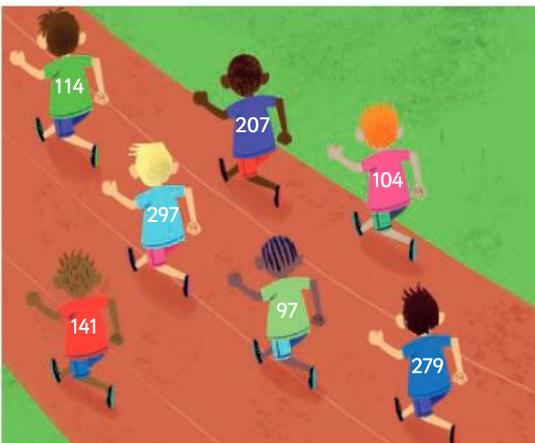
a the biggest number.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

b the smallest number.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

3



a The smallest number is:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

b The numbers bigger than 115 are:

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

# UNIT 1: TOPIC 2

## Adding in your head

### Adding with doubles

$$11 + 13 = 11 + 11 + 2 = 22 + 2 = 24$$

### Guided practice

Knowing  $8 + 8$  can help me work out  $8 + 9$ .



1 Use doubles to help you add.

a  $8 + 9 = 8 + 8 + \square = 16 + \square = \square \square$

b  $10 + 13 = 10 + 10 + \square = \square \square + \square = \square \square$

c  $15 + 17 = 15 + 15 + \square = \square \square + \square = \square \square$

d  $12 + 13 = 12 + 12 + \square = \square \square + \square = \square \square$

e  $14 + 15 = 14 + 14 + \square = \square \square + \square = \square \square$

## Independent practice

1 Add these doubles.

a  $7 + 7 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

b  $11 + 11 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

c  $16 + 16 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

d  $20 + 20 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

e  $25 + 25 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

f  $50 + 50 =$ 

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

2 Add these near doubles.

a  $7 + 9 =$ 

|  |
|--|
|  |
|--|

 $+$ 

|  |
|--|
|  |
|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

b  $11 + 13 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

  
 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

c  $16 + 17 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

  
 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

d  $20 + 23 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

  
 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

e  $25 + 27 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

|  |
|--|
|  |
|--|

 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

 $+$ 

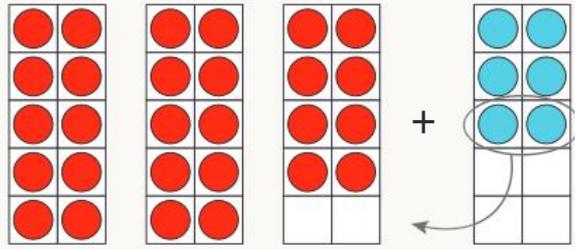
|  |
|--|
|  |
|--|

  
 $=$ 

|  |  |
|--|--|
|  |  |
|--|--|

## Getting to a 10

$$\begin{aligned}
 28 + 6 &= 28 + 2 + 4 \\
 &= 30 + 4 \\
 &= 34
 \end{aligned}$$



It's easier to add numbers to a tens number like 10, 20 or 30.

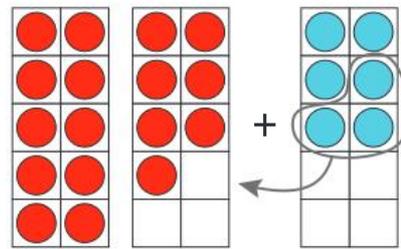
## Guided practice

1 Add by getting to a 10.

a  $17 + 6 = 17 + \boxed{3} + \boxed{\phantom{0}}$

$$= 20 + \boxed{\phantom{0}}$$

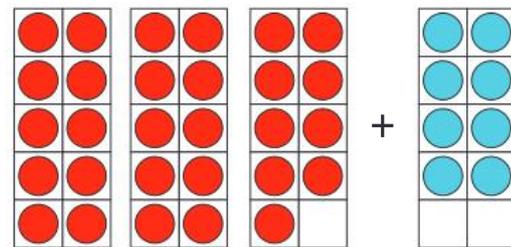
$$= \boxed{\phantom{0}} \boxed{\phantom{0}}$$



b  $29 + 8 = 29 + \boxed{\phantom{0}} + \boxed{\phantom{0}}$

$$= 30 + \boxed{\phantom{0}}$$

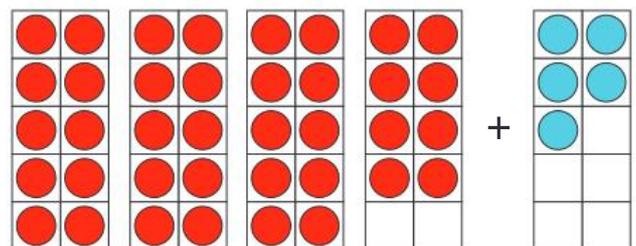
$$= \boxed{\phantom{0}} \boxed{\phantom{0}}$$



c  $38 + 5 = 38 + \boxed{\phantom{0}} + \boxed{\phantom{0}}$

$$= 40 + \boxed{\phantom{0}}$$

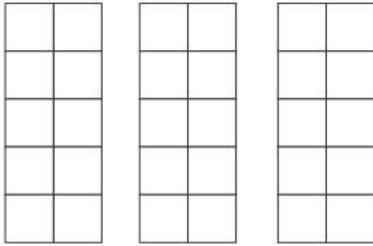
$$= \boxed{\phantom{0}} \boxed{\phantom{0}}$$



## Independent practice

1 Draw getting to a 10 to solve the equations.

a

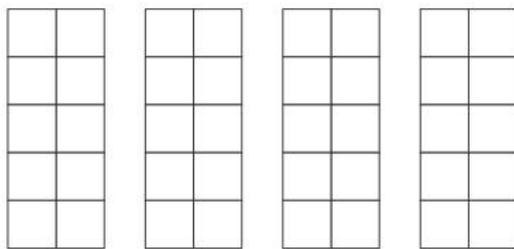


$$18 + 9 = \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

b



$$26 + 7 = \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

2 Solve by getting to a 10.

a

$$25 + 8 = \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

b

$$37 + 6 = \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \square$$

$$= \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

## Extended practice

1 Use doubles to help you find the answers.

a  $20 + 22 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

b  $25 + 28 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

c  $30 + 33 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

d  $40 + 42 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

e  $50 + 51 =$ 

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

f  $55 + 57 =$ 

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

2 Use getting to a 10 to solve these in your head.

a  $28 + 9 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

b  $36 + 8 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

c  $47 + 5 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

d  $59 + 7 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

e  $66 + 6 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

f  $78 + 7 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

3 Choose which method you will use, then solve the equations.

a  $39 + 7 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

|                 |                    |
|-----------------|--------------------|
| Near<br>doubles | Getting<br>to a 10 |
|-----------------|--------------------|

b  $40 + 41 =$ 

|  |  |
|--|--|
|  |  |
|--|--|

|                 |                    |
|-----------------|--------------------|
| Near<br>doubles | Getting<br>to a 10 |
|-----------------|--------------------|

c  $100 + 102 =$ 

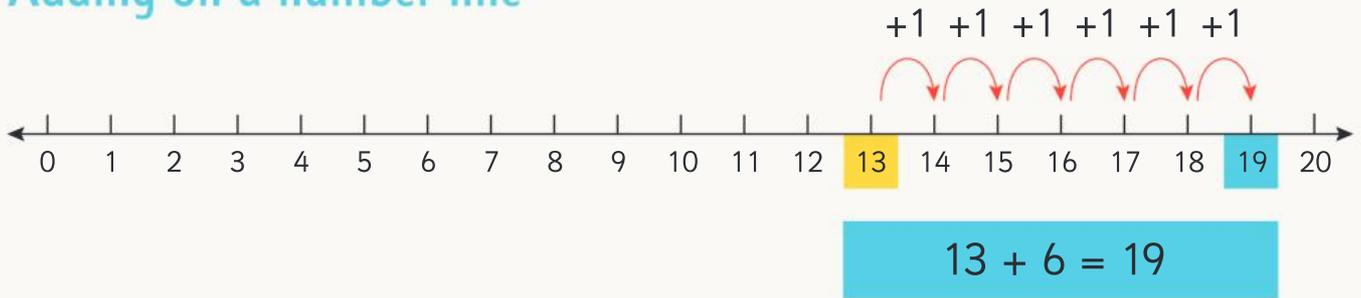
|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

|                 |                    |
|-----------------|--------------------|
| Near<br>doubles | Getting<br>to a 10 |
|-----------------|--------------------|

# UNIT 1: TOPIC 3

## Exploring addition

### Adding on a number line



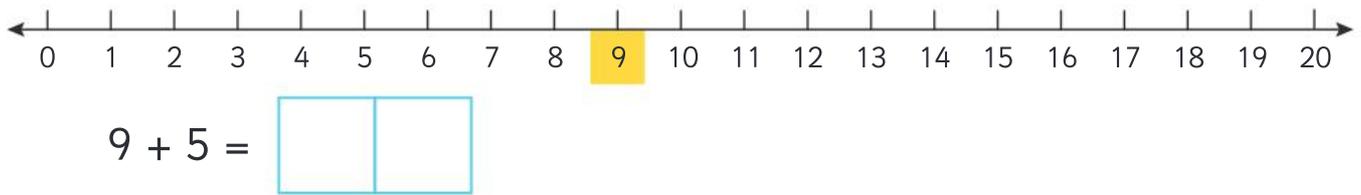
### Guided practice

Start from the bigger number when you are adding on the number line!

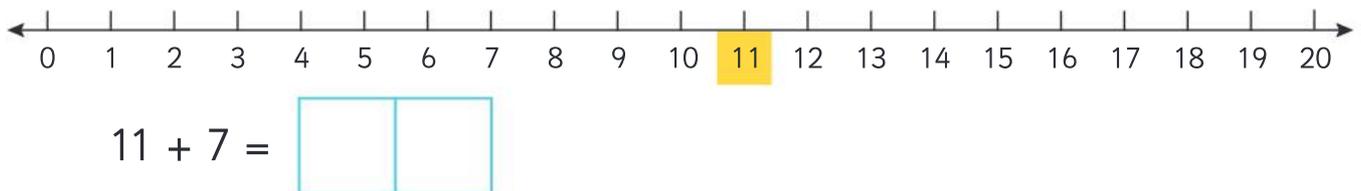


Find the answers with the number lines.

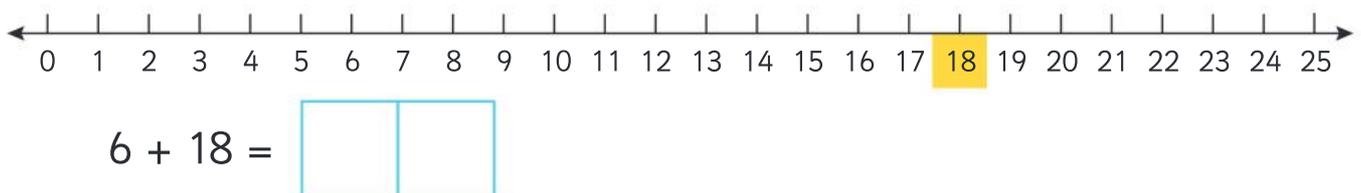
1



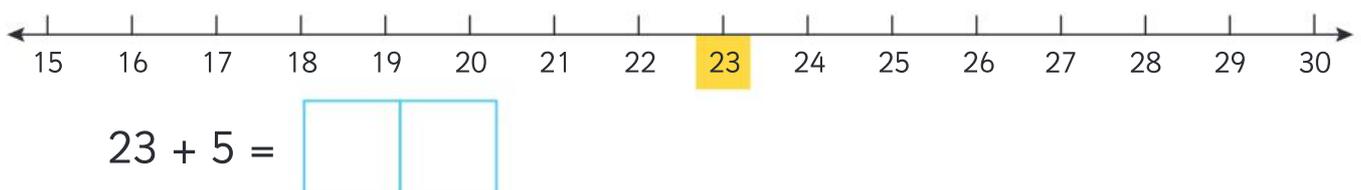
2



3



4



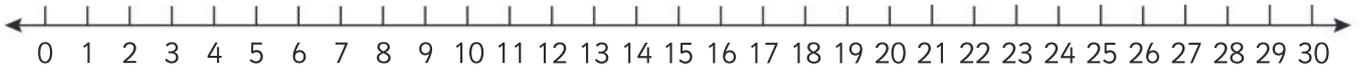
## Independent practice

Why is it easier to start from the bigger number?



Use the number lines to find the answers.

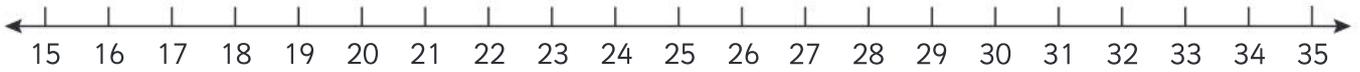
1



$19 + 8 =$

|  |  |
|--|--|
|  |  |
|--|--|

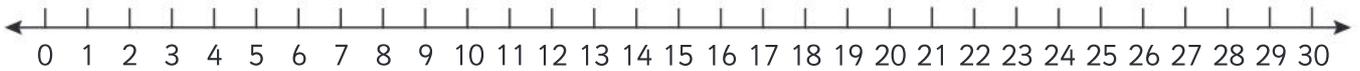
2



$24 + 6 =$

|  |  |
|--|--|
|  |  |
|--|--|

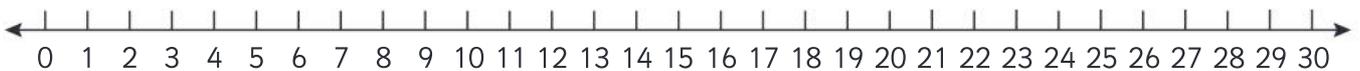
3



$7 + 14 =$

|  |  |
|--|--|
|  |  |
|--|--|

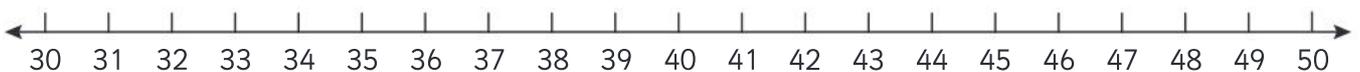
4



$5 + 21 =$

|  |  |
|--|--|
|  |  |
|--|--|

5



$32 + 10 =$

|  |  |
|--|--|
|  |  |
|--|--|