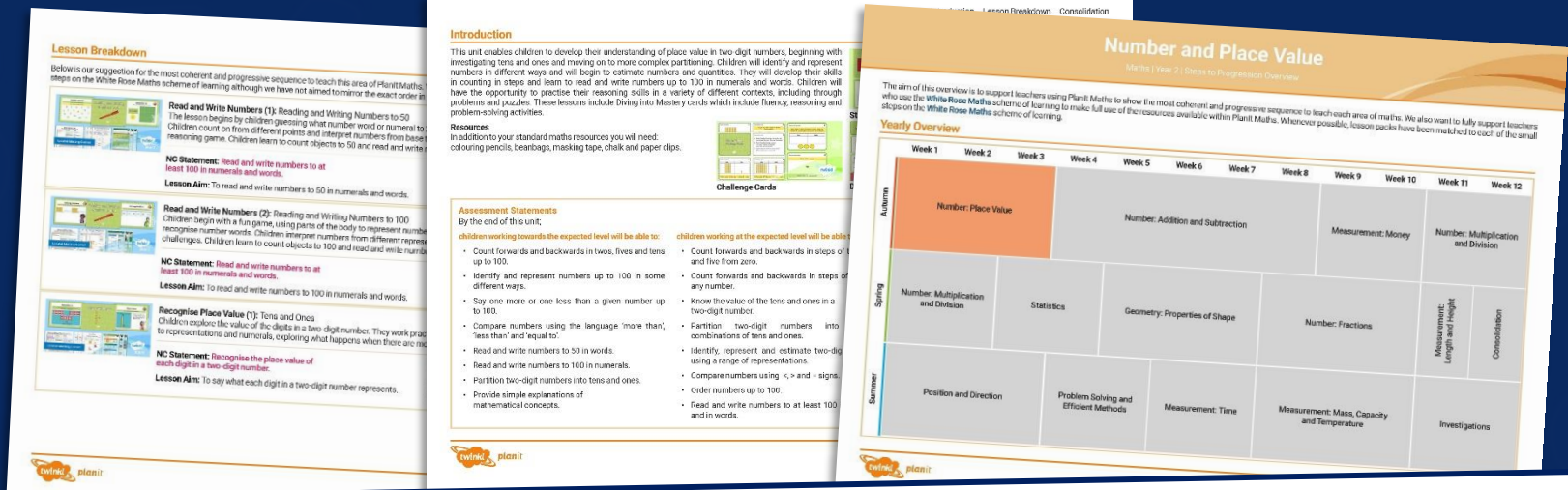




# Maths

## Number and Place Value

# Need a coherently planned sequence of lessons to complement this resource?



**Lesson Breakdown**

Below is our suggestion for the most coherent and progressive sequence to teach this area of Planit Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in which the lessons are presented.

**Read and Write Numbers (1):** Reading and Writing Numbers to 50  
The lesson begins by children guessing what number word or numeral to 100. Children count on from different points and interpret numbers from base 10 remaining game. Children learn to count objects to 50 and read and write numbers to 50.

**NC Statement:** Read and write numbers to at least 100 in numerals and words.

**Lesson Aim:** To read and write numbers to 50 in numerals and words.

**Read and Write Numbers (2):** Reading and Writing Numbers to 100  
Children begin with a fun game, using parts of the body to represent number challenges. Children interpret numbers from different representations. Children learn to count objects to 100 and read and write numbers to 100.

**NC Statement:** Read and write numbers to at least 100 in numerals and words.

**Lesson Aim:** To read and write numbers to 100 in numerals and words.

**Recognise Place Value (1):** Tens and Ones  
Children explore the value of the digits in a two digit number. They work pract to representations and numerals, exploring what happens when there are no tens or ones.

**NC Statement:** Recognise the place value of each digit in a two-digit number.

**Lesson Aim:** To say what each digit in a two-digit number represents.

**Introduction**

This unit enables children to develop their understanding of place value in two-digit numbers, beginning with investigating tens and ones and moving on to more complex partitioning. Children will identify and represent numbers in different ways and will begin to estimate numbers and quantities. They will develop their skills in counting in steps and learn to read and write numbers up to 100 in numerals and words. Children will have the opportunity to practise their reasoning skills in a variety of different contexts, including through problems and puzzles. These lessons include: Diving into Mastery cards which include fluency, reasoning and problem-solving activities.

**Resources**

In addition to your standard maths resources you will need: colouring pencils, bearbags, masking tape, chalk and paper clips.

**Challenge Cards**

**Assessment Statements**

By the end of this unit:

**children working towards the expected level will be able to:**

- Count forwards and backwards in twos, fives and tens up to 100.
- Identify and represent numbers up to 100 in some different ways.
- Say one more or one less than a given number up to 100.
- Compare numbers using the language 'more than', 'less than' and 'equal to'.
- Read and write numbers to 50 in words.
- Read and write numbers to 100 in numerals.
- Partition two-digit numbers into tens and ones.
- Provide simple explanations of mathematical concepts.

**children working at the expected level will be able to:**

- Count forwards and backwards in steps of 2 and five from zero.
- Count forwards and backwards in steps of 10 from any number.
- Know the value of the tens and ones in a two-digit number.
- Partition two-digit numbers into combinations of tens and ones.
- Identify, represent and estimate two-digit numbers using a range of representations.
- Compare numbers using  $<$ ,  $>$  and  $=$  signs.
- Order numbers up to 100.
- Read and write numbers to at least 100 in words.

**Number and Place Value**

Maths | Year 2 | Steps to Progression Overview

The aim of this overview is to support teachers using Planit Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within Planit Maths. Wherever possible, lesson packs have been matched to each of the annual steps on the White Rose Maths scheme of learning.

**Yearly Overview**

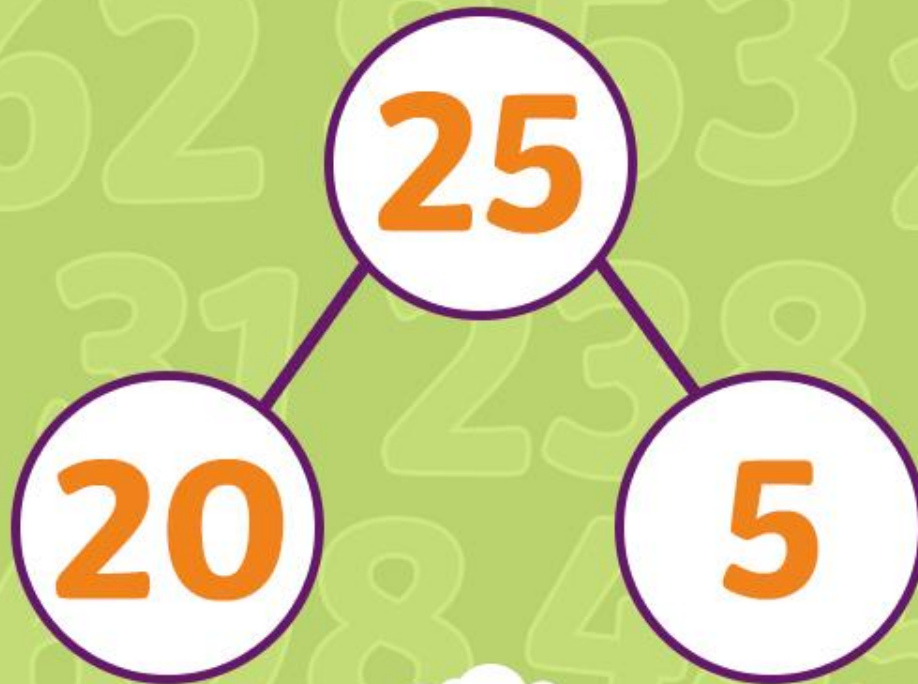
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition and Subtraction				Measurement: Money		Number: Multiplication and Division			
Spring	Number: Multiplication and Division		Statistics	Geometry: Properties of Shape			Number: Fractions		Measurement: Length and Height	Consolidation		
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations			

See our [Number and Place Value Steps to Progression](#) document.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.



# Partitioning



# Aim

- To partition numbers into tens and ones.

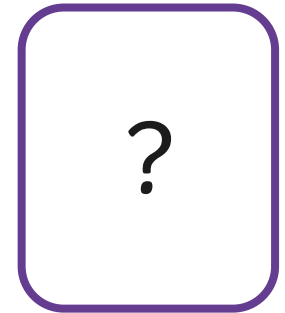
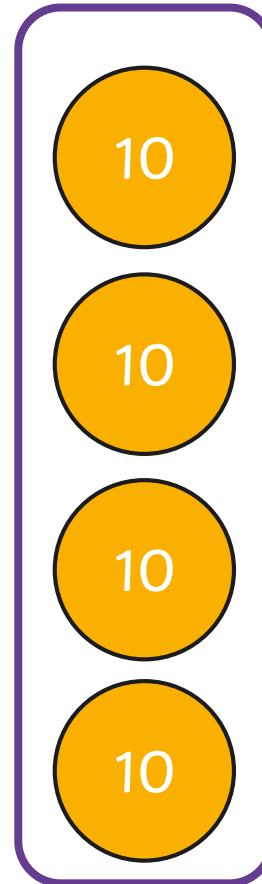
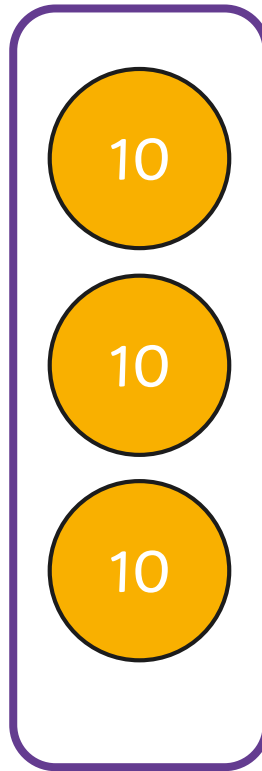
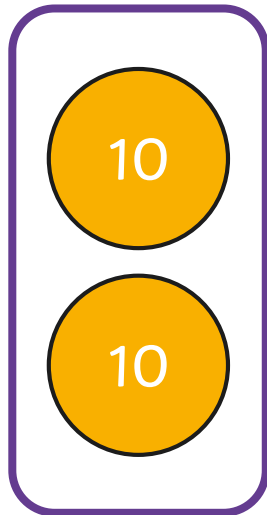
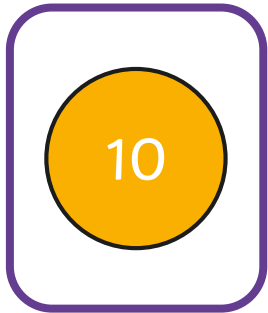
# Success Criteria

- I can say what the value of each digit in a two-digit number is.
- I can write two-digit numbers as tens and ones.
- I can write two-digit numbers in the expanded form.
- I can show two-digit numbers as tens and ones using equipment.

# Remember It



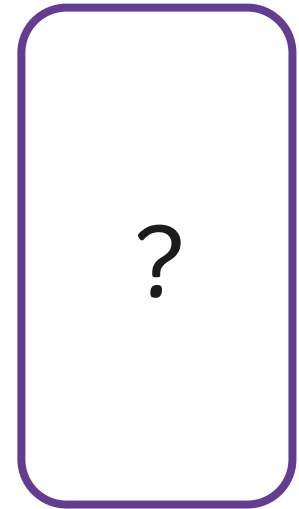
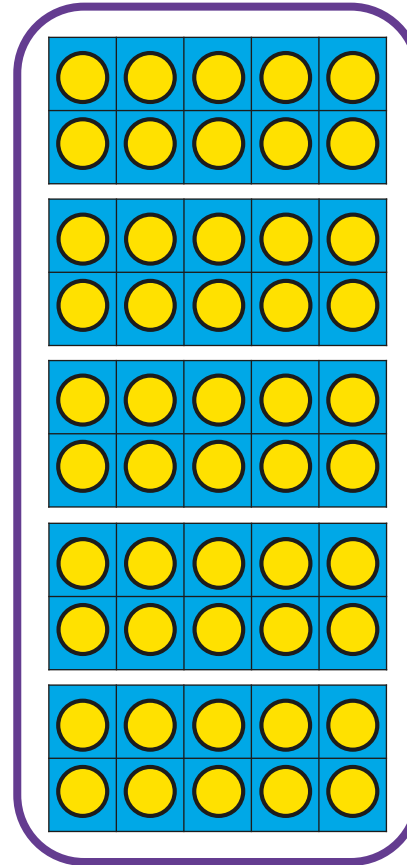
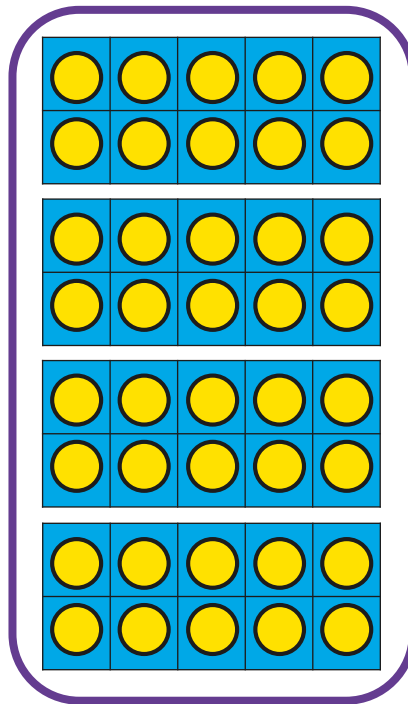
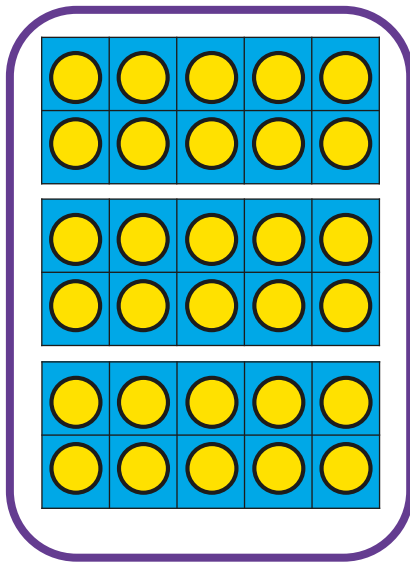
What should come next? How do you know?



# Remember It



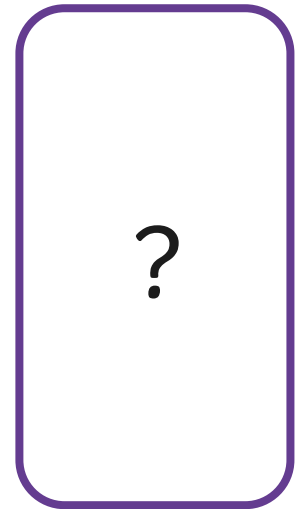
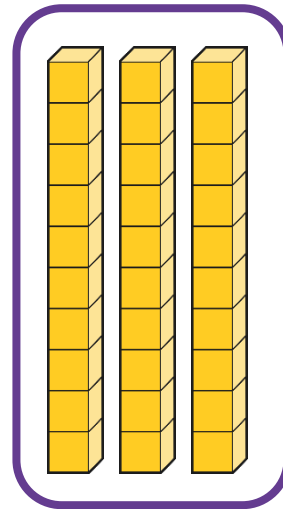
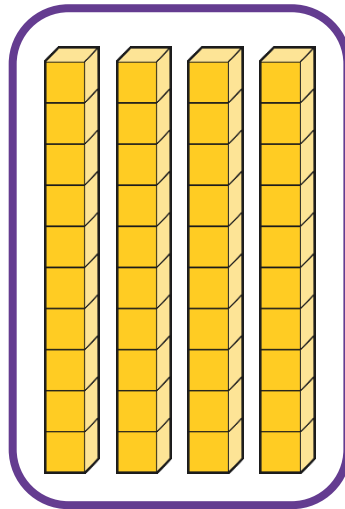
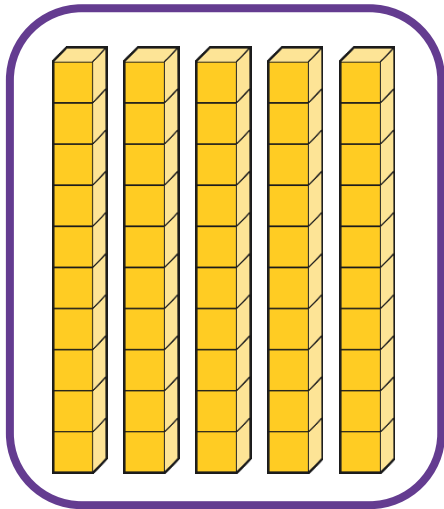
What should come next? What wouldn't come next?



# Remember It



What should come next? Explain your answer.



# Partitioning

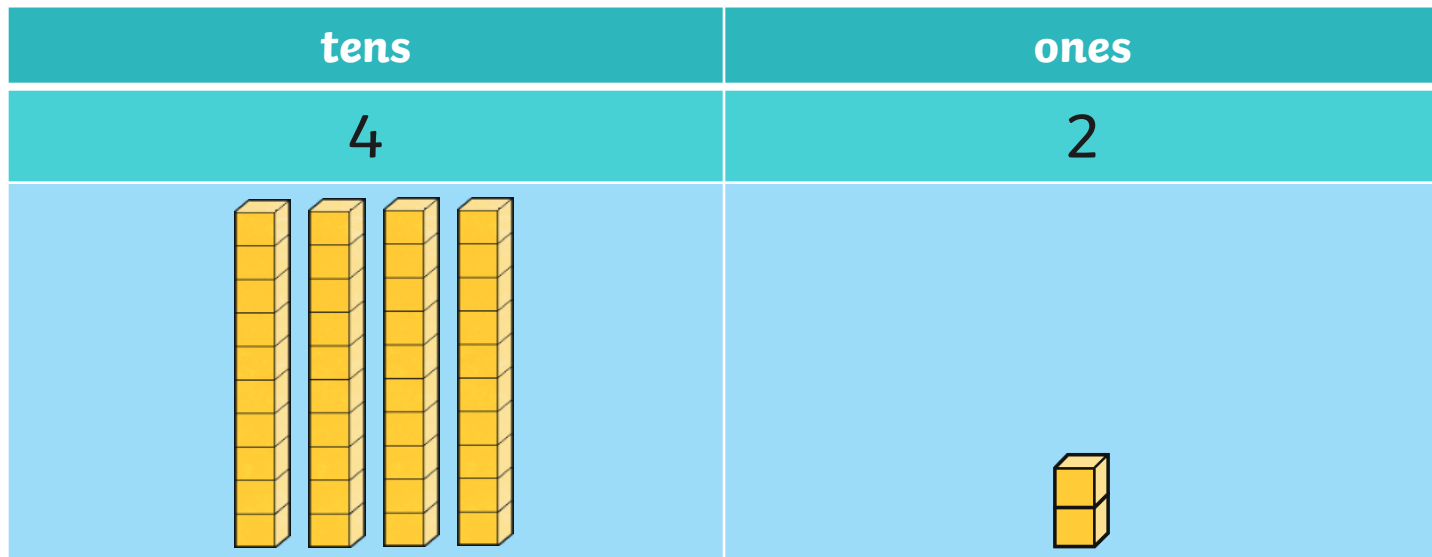


We can show the number 42 in lots of different ways.

The digit 4 is in the tens place. It stands for 4 tens.

42

The digit 2 is in the ones place. It stands for 2 ones.



Splitting a number up like this is called partitioning.

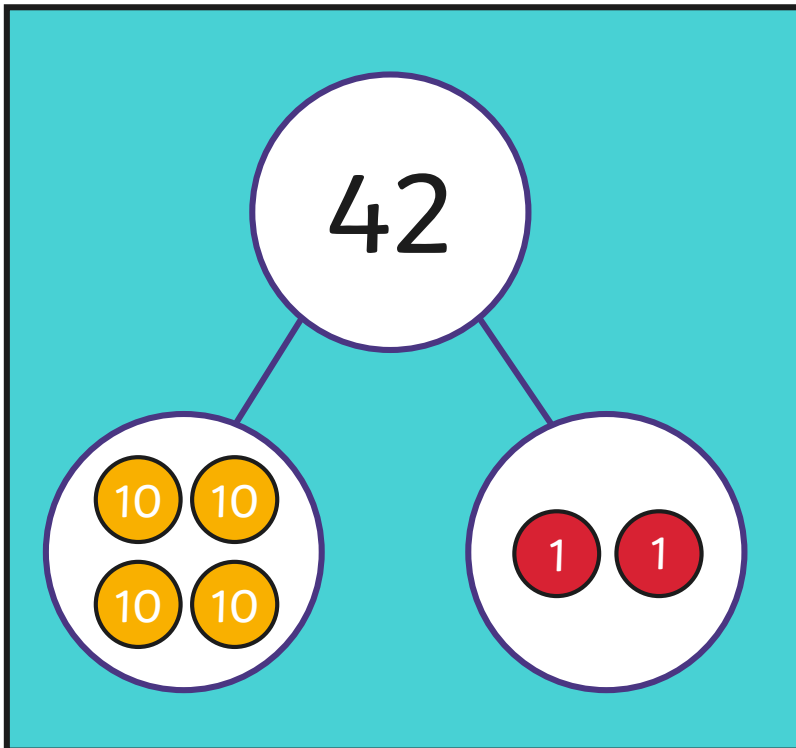


# Partitioning



When we partition a two-digit number, we can split the numbers into tens and ones.

We can use partitioning to help us represent numbers in addition and subtraction equations.



$$40 + 2 = 42$$

$$2 + 40 = 42$$

$$42 = 40 + 2$$

$$42 = 2 + 40$$



$$42 - 2 = 40$$

$$42 - 40 = 2$$

$$40 = 42 - 2$$

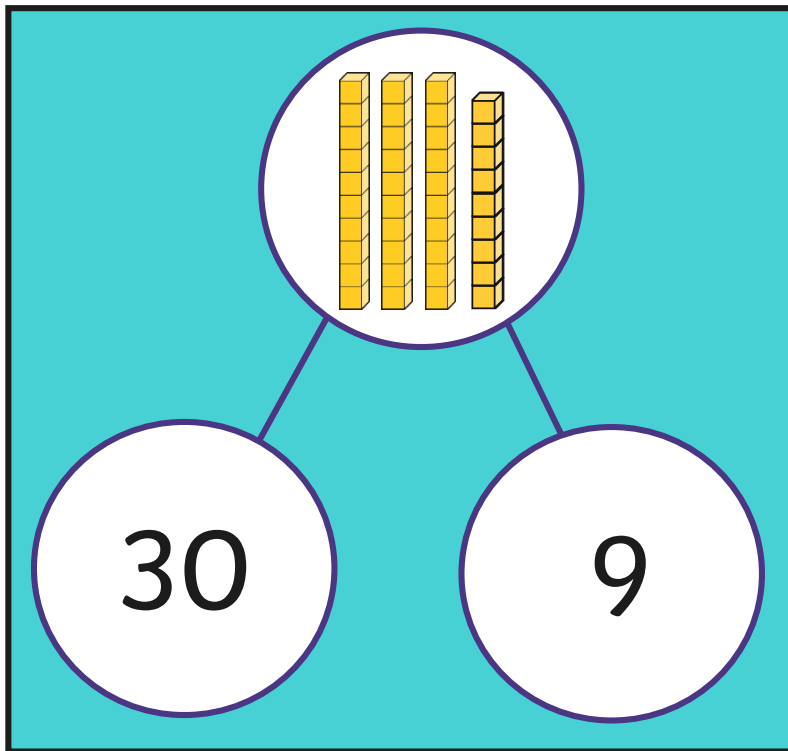
$$2 = 42 - 40$$



# Partitioning



Can you partition this number and represent it as addition and subtraction equations?



$$30 + 9 = 39$$

$$9 + 30 = 39$$

$$39 = 30 + 9$$

$$39 = 9 + 30$$

$$39 - 30 = 9$$

$$39 - 9 = 30$$

$$9 = 39 - 30$$

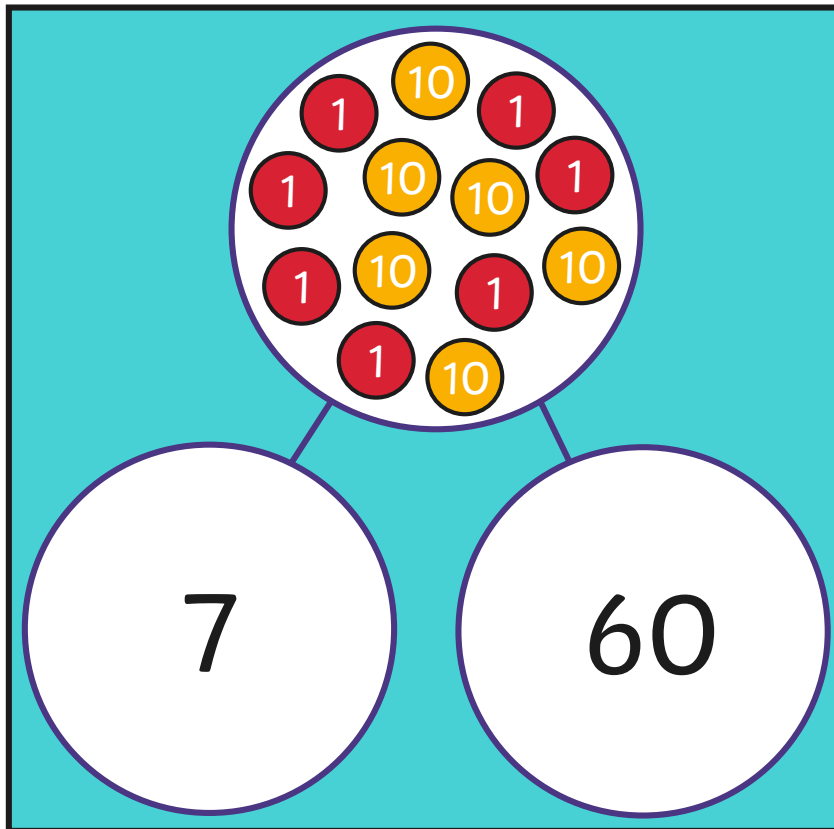
$$30 = 39 - 9$$



# Partitioning



Can you partition this number and represent it as addition and subtraction equations?



$$60 + 7 = 67$$

$$7 + 60 = 67$$

$$67 = 60 + 7$$

$$67 = 7 + 60$$

$$67 - 60 = 7$$

$$67 - 7 = 60$$

$$7 = 67 - 60$$

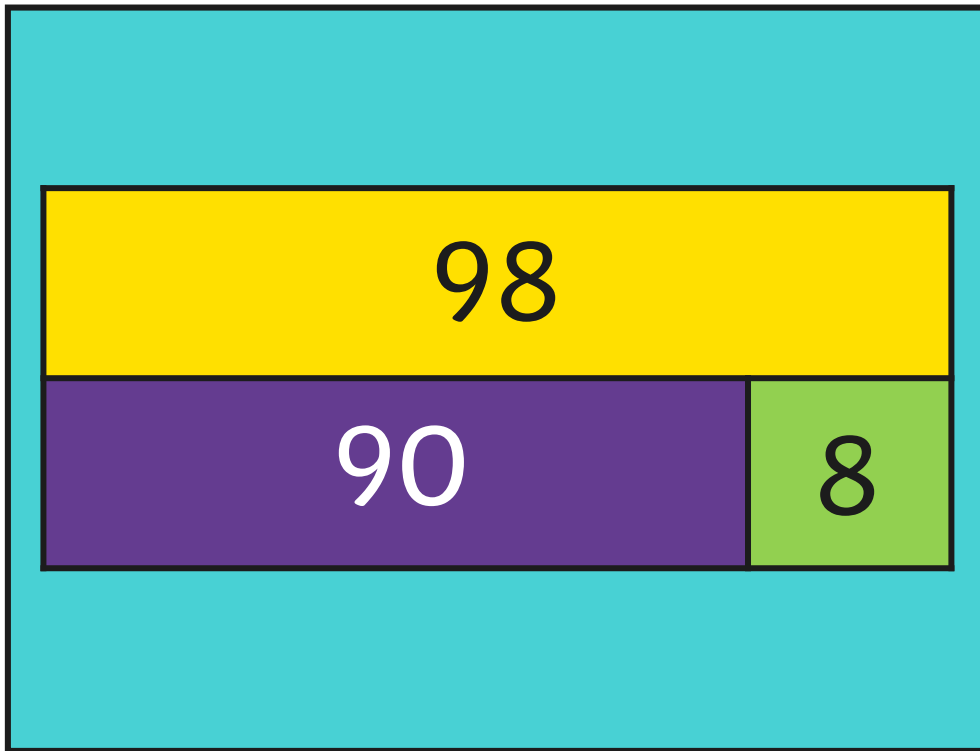
$$60 = 67 - 7$$



# Partitioning



Can you partition this number and represent it as addition and subtraction equations?



$$90 + 8 = 98$$

$$8 + 90 = 98$$

$$98 = 90 + 8$$

$$98 = 8 + 90$$

$$98 - 90 = 8$$

$$98 - 8 = 90$$

$$8 = 98 - 90$$

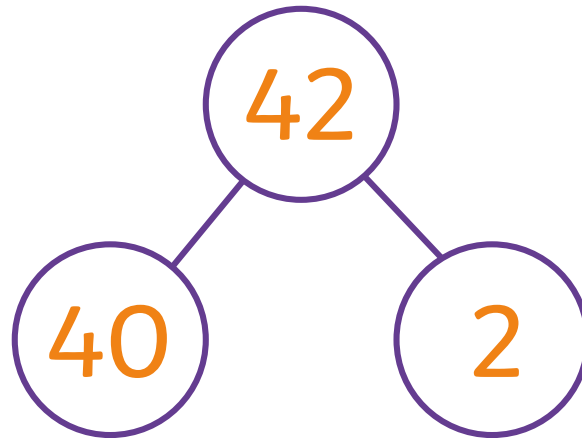
$$90 = 98 - 8$$



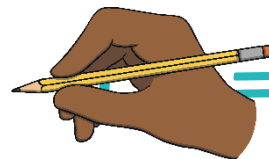
# Expanded Form



We know that 42 has 4 tens and 2 ones.



We know we can write it out like this:

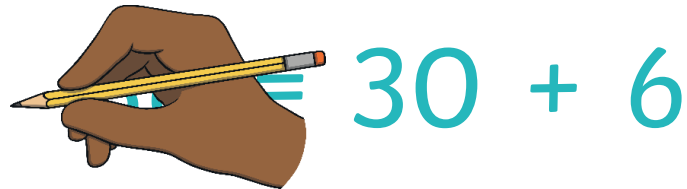

$$= 40 + 2$$

When we show the tens and ones like this, it is called the expanded form.

# Expanded Form



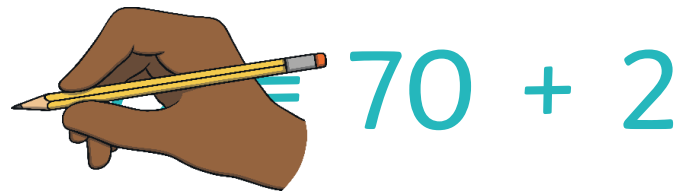
Can you write the following number using the expanded form?



# Expanded Form



Can you write the following number using the expanded form?



# Expanded Form



Can you write the following numbers using the expanded form?

30

67

21

49

53

99

65

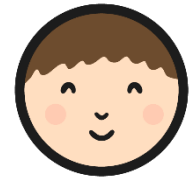
88

33





# Partitioning Activity

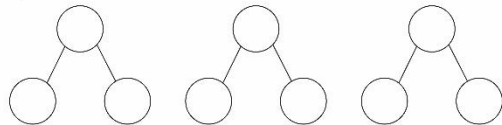


Can you complete the **Partition Two-Digit Numbers Activity Sheet**?

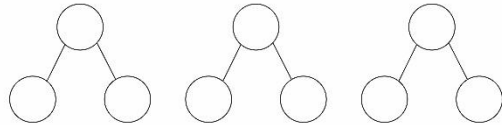
## Partitioning Two-Digit Numbers

To partition numbers into tens and ones.

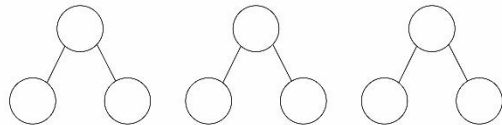
Choose a number card. Write the number you chose in the top circle. Make the number out of equipment, then partition it. Write the number of tens and ones underneath.



\_\_\_ tens + \_\_\_ ones = \_\_\_    \_\_\_ ones + \_\_\_ tens = \_\_\_    \_\_\_ tens + \_\_\_ ones = \_\_\_



\_\_\_ tens + \_\_\_ ones = \_\_\_    \_\_\_ ones + \_\_\_ tens = \_\_\_    \_\_\_ tens + \_\_\_ ones = \_\_\_

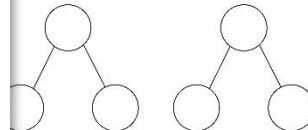


\_\_\_ tens + \_\_\_ ones = \_\_\_    \_\_\_ ones + \_\_\_ tens = \_\_\_    \_\_\_ tens + \_\_\_ ones = \_\_\_

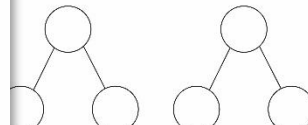
## Two-Digit Numbers

Partition numbers into tens and ones.

Choose the number you chose in the top circle. Write the number in the expanded form underneath it.

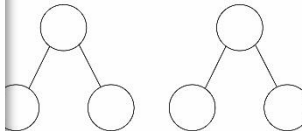


+ = =  
+ = =  
= + =  
= + =



+ = =  
+ = =  
= + =  
= + =

## Two-Digit Numbers



+ = =  
+ = =  
= + =  
= + =

## Two-Digit Numbers

Partition numbers into tens and ones.

Choose the number in the table. Write the number in the expanded form value chart, then write the related equations. The first one has been done for you.

Place Value Chart		Represent as Equations
		80 + 6 = 86 6 + 80 = 86
Tens	Ones	86 = 80 + 6 86 = 6 + 80
8	6	86 - 6 = 80 86 - 80 = 6
		80 = 86 - 6 6 = 86 - 80
Tens	Ones	

## Diving into Mastery

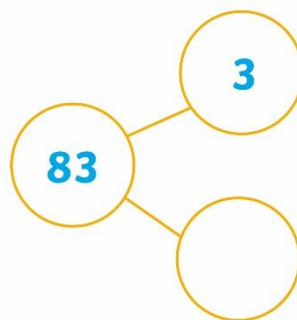
Dive in by completing your own activity!



### Partitioning



Complete the part-whole model and write four addition number sentences to match it.

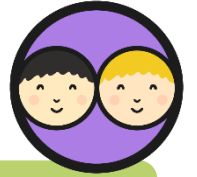


$+$	$=$
$+$	$=$
$=$	$+$
$=$	$+$

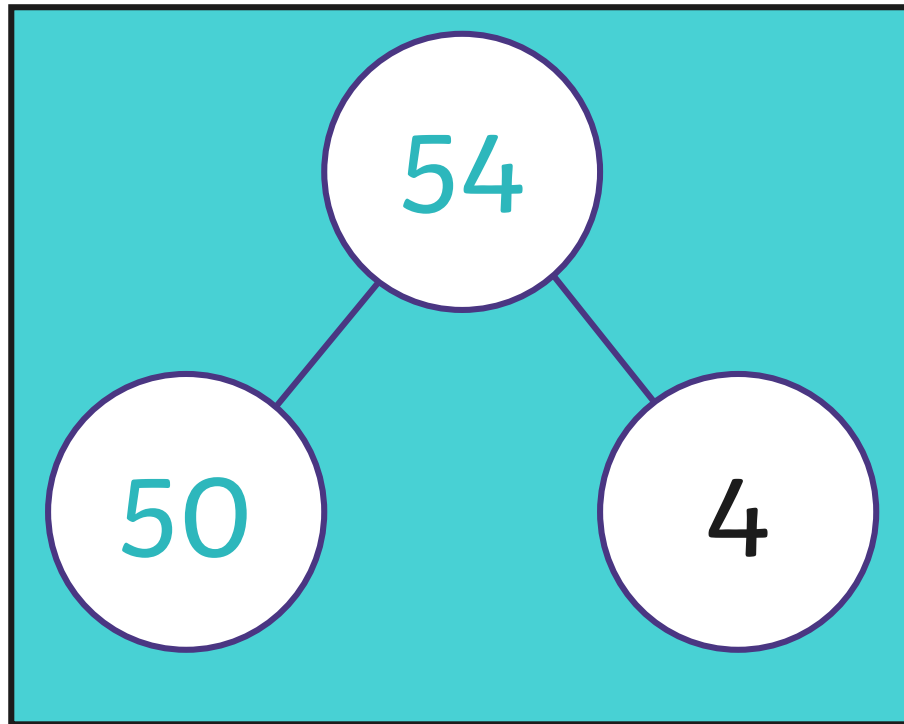
Draw your own part-whole models and write four addition number sentences for each.



# Missing Numbers



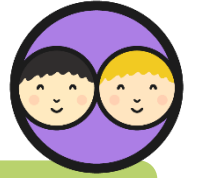
Can you find the missing numbers using these clues?



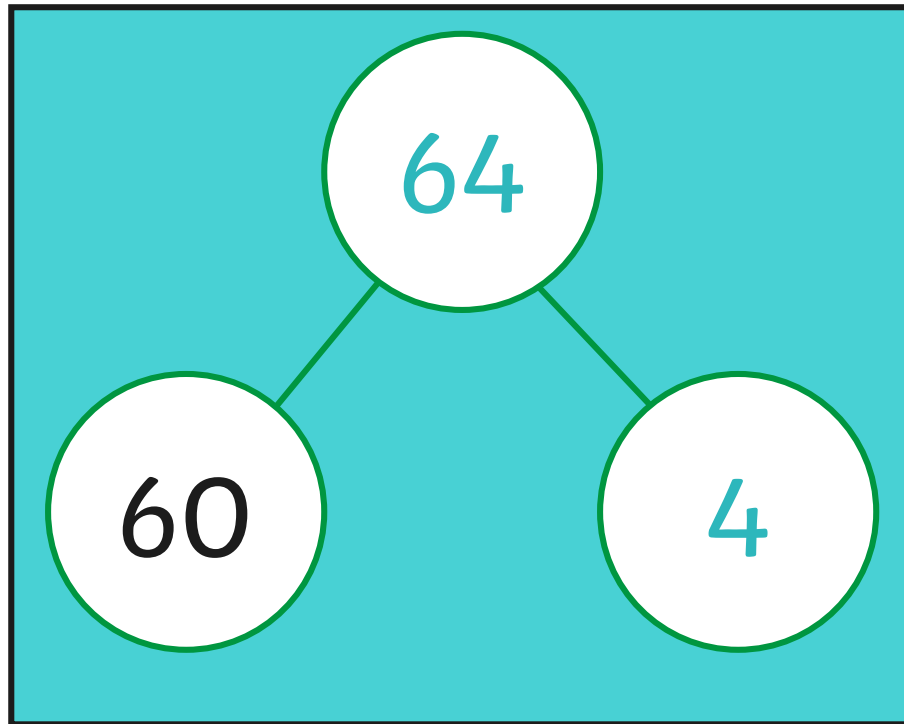
$$\underline{54} = \underline{5} \text{ tens} + \underline{4} \text{ ones}$$



# Missing Numbers



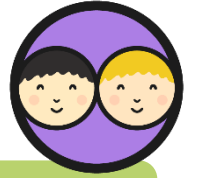
Can you find the missing numbers using these clues?



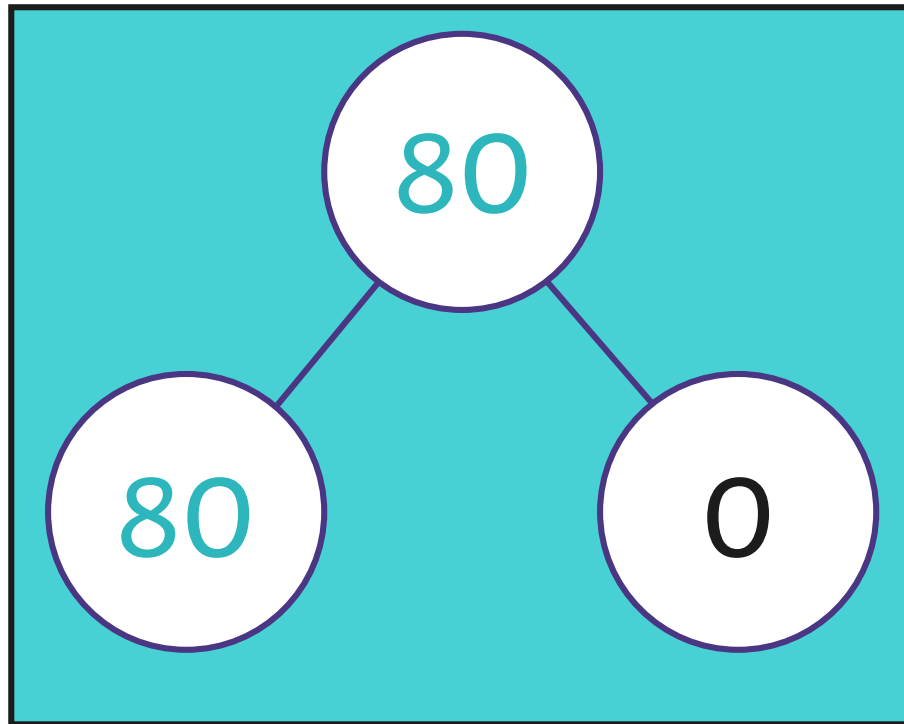
$$\underline{64} = \underline{6} \text{ tens} + \underline{4} \text{ ones}$$



# Missing Numbers



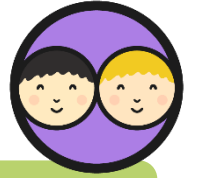
Can you find the missing numbers using these clues?



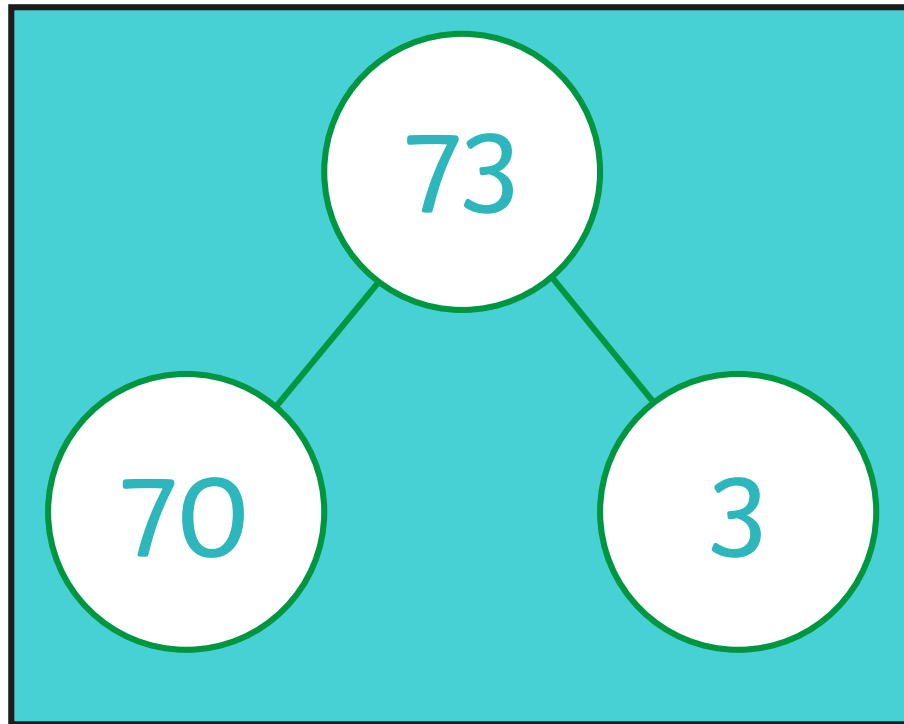
$$\underline{80} = \underline{8} \text{ tens} + \underline{0} \text{ ones}$$



# Missing Numbers



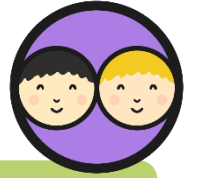
Can you find the missing numbers using these clues?



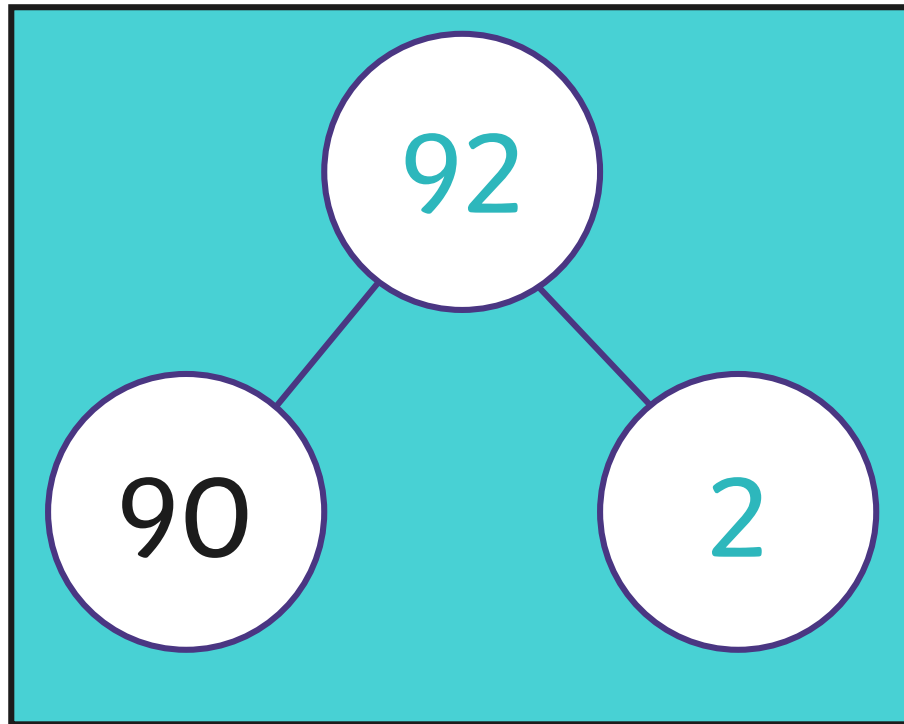
$$\underline{73} = \underline{7} \text{ tens} + \underline{3} \text{ ones}$$



# Missing Numbers



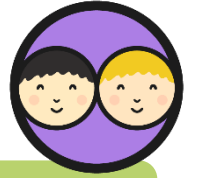
Can you find the missing numbers using these clues?



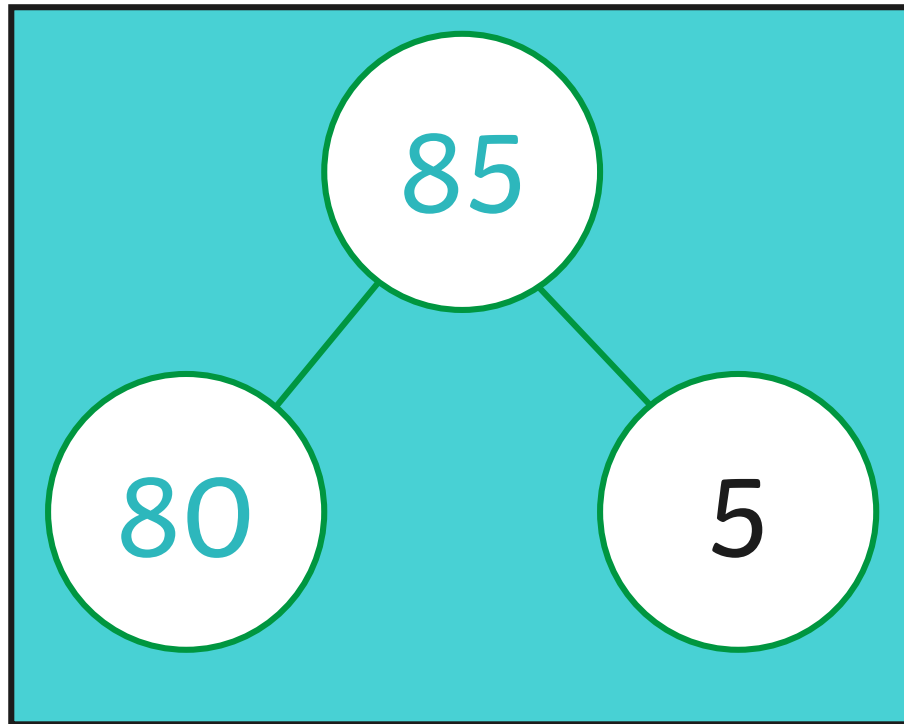
$$\underline{92} = \underline{9} \text{ tens} + \underline{2} \text{ ones}$$



# Missing Numbers



Can you find the missing numbers using these clues?



$$\underline{85} = \underline{8} \text{ tens} + \underline{5} \text{ ones}$$





# Aim



- To partition numbers into tens and ones.

# Success Criteria

- I can say what the value of each digit in a two-digit number is.
- I can write two-digit numbers as tens and ones.
- I can write two-digit numbers in the expanded form.
- I can show two-digit numbers as tens and ones using equipment.

765.395289873  
991 6789 78 096  
8562 853 2234  
309 31 238 948  
9 5698 435 -31  
63 567 892 2.548

