



# Maths

## Addition and Subtraction

# 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 resources are presented.

**Recall and Use Facts (1): Number Facts up to 10**

This computer game themed lesson is designed to help children secure their understanding of number facts. Children use a range of methods to investigate and check if they are correct. Differentiated activity sheets and mastery cards to help children.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.

**Lesson Aim:** To recall and use number facts up to 10.

**Recall and Use Facts (2): Number Facts up to 20**

This lesson teaches children to use familiar number facts to solve and create problems. Children are encouraged to use different representations to support their learning. Differentiated activity sheets and mastery cards to help children develop fluency.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.

**Lesson Aim:** To recall and use number facts up to 20.

**Solve Problems (1): Using Different Representations to Solve Problems**

Children learn to solve addition and subtraction problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods. This lesson includes Diving into Mastery activity cards with fluency resources.

**NC Statement:** Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods.

**Lesson Aim:** To solve addition and subtraction problems using objects, pictures and models.

**Introduction**

In this unit, children will learn to recall and use addition and subtraction facts. They use a variety of different models, images and equipment to build their number sense, enabling them to use facts flexibly. They learn different strategies to help them add and subtract numbers efficiently, explaining their methods with concrete resources or jottings. Methods include: adding a unit to a ten, adding three single-digit numbers and adding and subtracting multiples of ten leading to pairs of two-digit numbers. They find the difference between numbers and reason about when it is quicker to find the difference or take away. They build up their understanding of commutativity and inverse relationships, using these to solve increasingly complex missing number problems. They apply their learning to problem-solving, and are able to ask questions, explain their choices and demonstrate their methods.

**Resources**

In addition to your standard maths resources, you will need:

- digital cameras

**Assessment Statements**

By the end of this unit;

children working towards the expected level will be able to:

- recall and use at least four out of six number facts to ten and derive their associated subtraction facts;
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required;
- explain their addition and subtraction methods verbally, in pictures or using apparatus;
- understand that two numbers can be added in any order and the answer will be the same.

children working at the expected level will be able to:

- recall number facts to add and within ten and subtraction facts. Use these to derive number and within 20 and 100;
- add and subtract within 100: a two-digit number and ones, a two-digit number and tens, two two-digit numbers;
- add three one digit numbers using efficient methods;
- understand that addition is commutative but subtraction is not, and explain what this means;
- use the inverse relationship between addition and subtraction to solve problems and check their calculations;
- solve addition and subtraction problems in context of quantities and measures, using pictures and mentally.

**Addition and Subtraction**

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. Whenever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

**Yearly Overview**

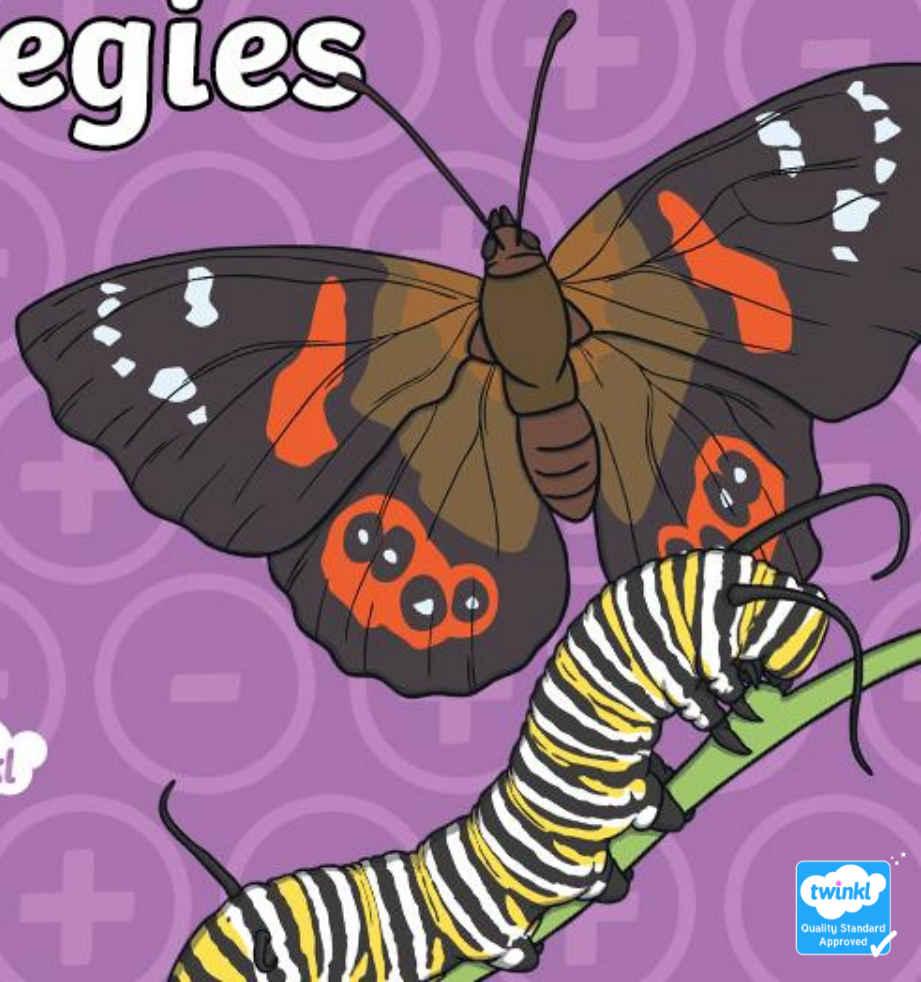
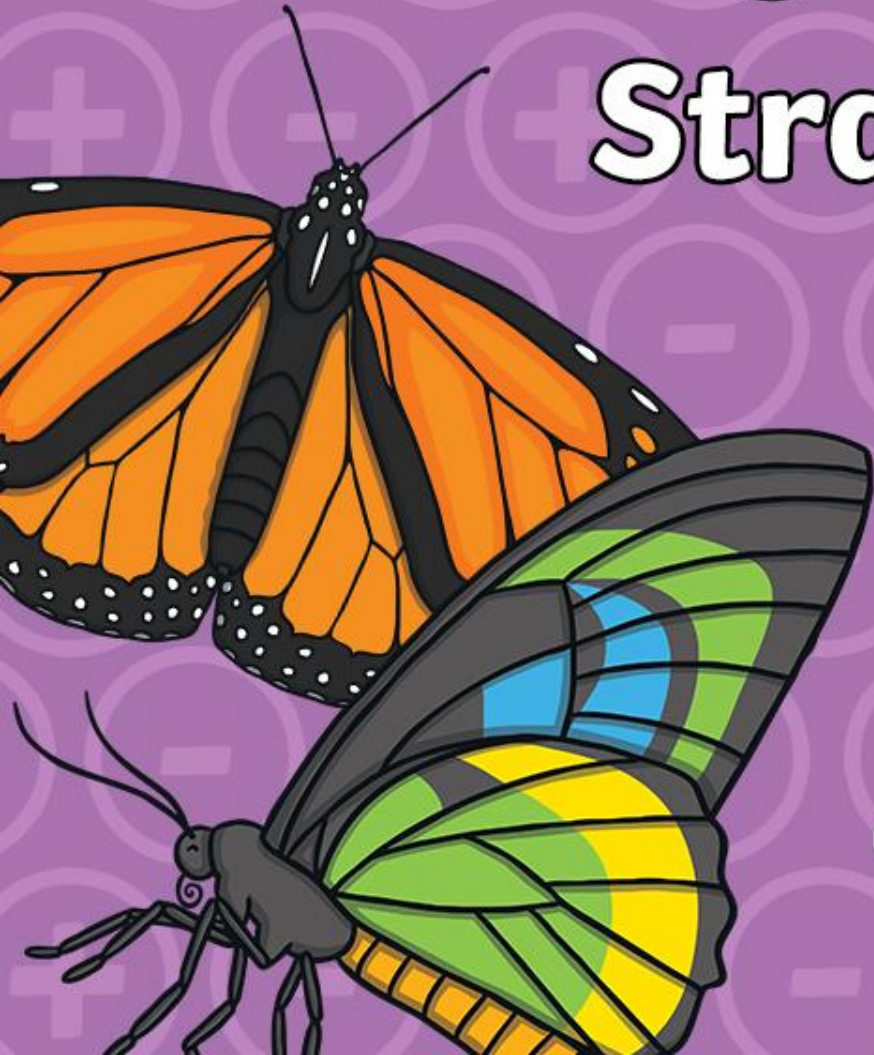
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value	Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division			
Spring	Number: Multiplication and Division		Statistics	Geometry: Properties of Shape			Number: 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 [Addition and Subtraction Steps to Progression](#) document.

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



# Choosing Subtraction Strategies



# Aim

- To choose effective subtraction strategies.

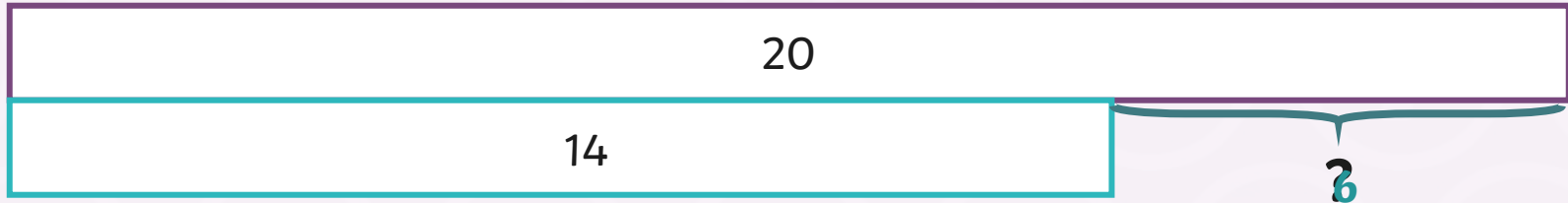
# Success Criteria

- I can use known number facts to subtract.
- I can count steps between numbers to find the difference.
- I can subtract using a number line.

# Remember It



What does this bar model show us about the difference between 14 and 20?



Can you complete the calculations to show the difference between 20 and 14?

$$14 + \boxed{6} = 20$$

$$20 - 14 = \boxed{6}$$

What is the same about these calculations?

What is different?

# Remember It



What does this number line show us about the difference between 33 and 37?



Can you complete the calculations to show the difference between 37 and 33?



$$33 + \boxed{4} = 37$$

$$37 - 33 = \boxed{4}$$

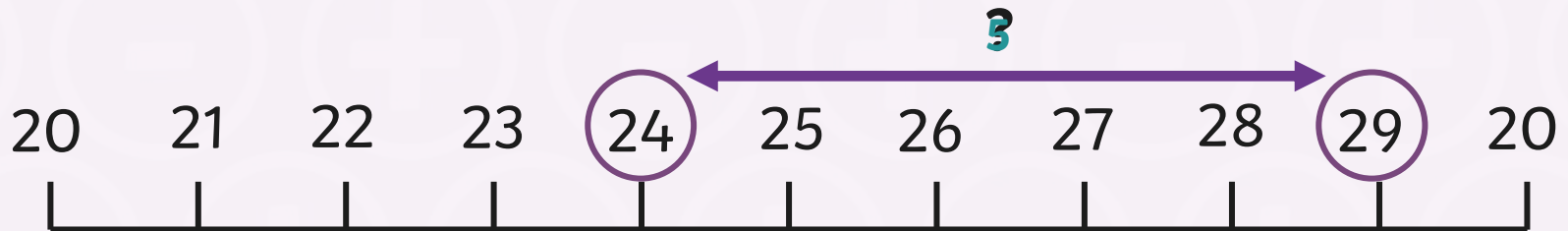
What is the same about these calculations?

What is different?

# Remember It



Can you use a number line to find the difference between 24 and 29?



Can you complete the calculations to show the difference between 29 and 24?

$$24 + \boxed{5} = 29$$

$$29 - 24 = \boxed{5}$$

# The Butterfly House



Class 2 are at the Butterfly House.

There are lots of insects to see.



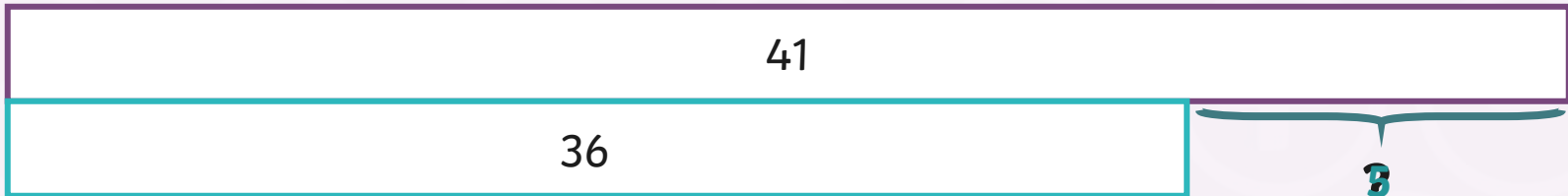
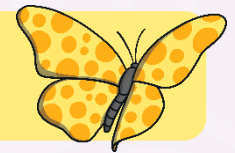


# The Butterfly House



Ann counts 41 butterflies. Azim counts 36.

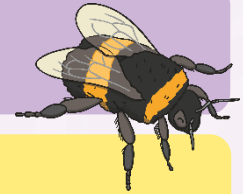
How many fewer butterflies does Azim see than Ann?



# The Butterfly House

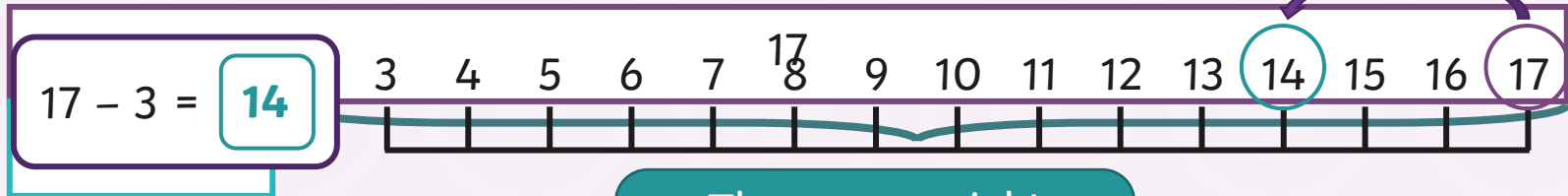


Samira counts 17 bees. Adam counts 3.



How many more bees does Samira see than Adam?

3



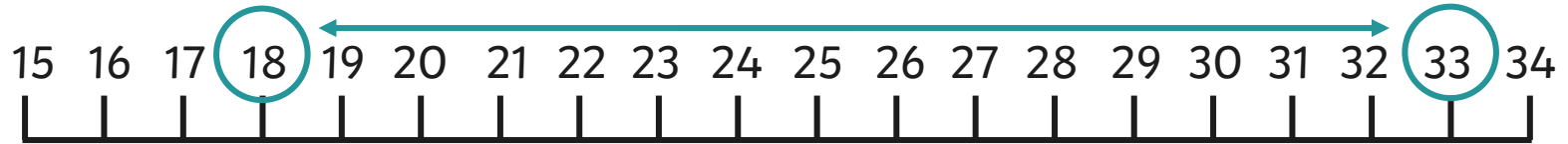
That was quick!  
There were fewer  
steps to count back.

$$3 + 14 = 17$$

$$17 - 14 = 3$$

I found the answer by  to work it out?  
subtracting 3 from 17.  better way to do this?

# The Butterfly House



If the gap between the two numbers is greater,  
try a different strategy.



# Strategies



We know lots of strategies to help us solve subtraction calculations.



Let's remind ourselves of some of the strategies that we have learnt so we know what will help us solve different calculations.

# Strategies



Subtract a 2-digit number from a 2-digit number not crossing ten.

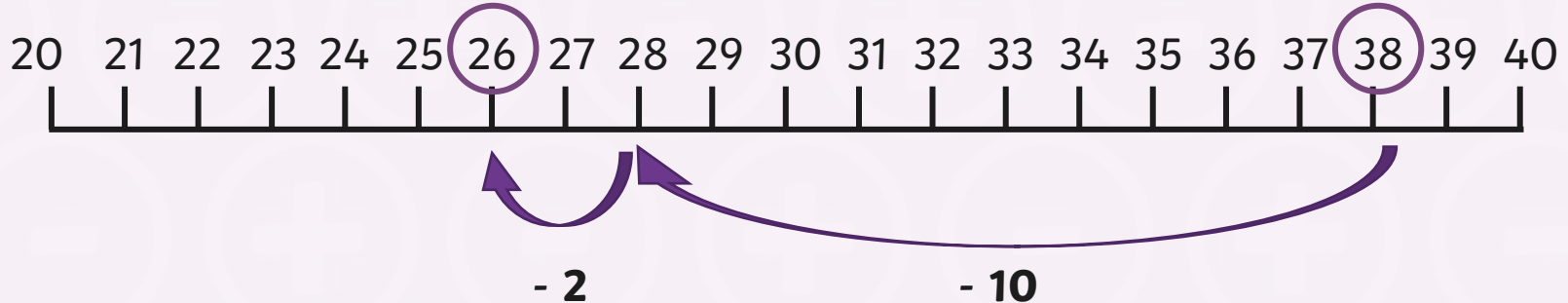


First, I partitioned 12 into tens and ones.  
Next, I subtracted the tens.  
Then, I subtracted the ones.

$$38 - 12 = 26$$

10

2



# Strategies



Subtract a 2-digit number from a 2-digit number not crossing ten.

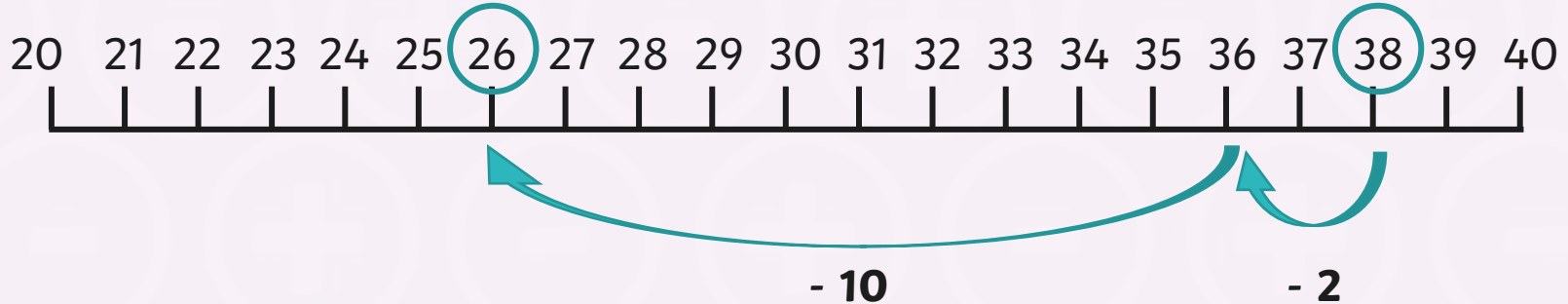


First, I partitioned 12 into tens and ones.  
Next, I subtracted the ones.  
Then, I subtracted the tens.

$$38 - 12 = 26$$

10

2



# Strategies



Subtract a 2-digit number from a 2-digit number crossing ten.

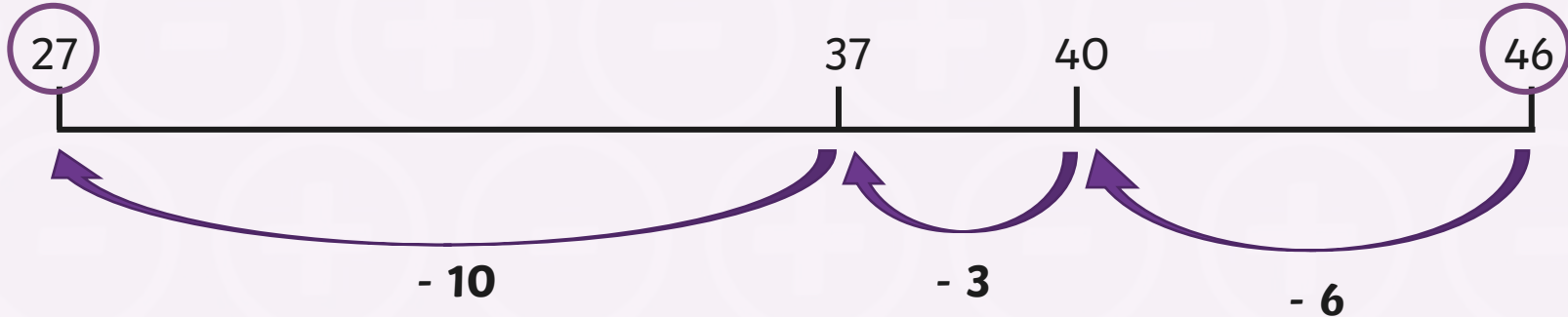


First, I partitioned the ones to find the nearest ten.  
Next, I subtracted the rest of the ones.  
Then, I subtracted the tens.

$$46 - 19 = 27$$

6

3



# Strategies



Subtract a 2-digit number from a 2-digit number crossing ten.

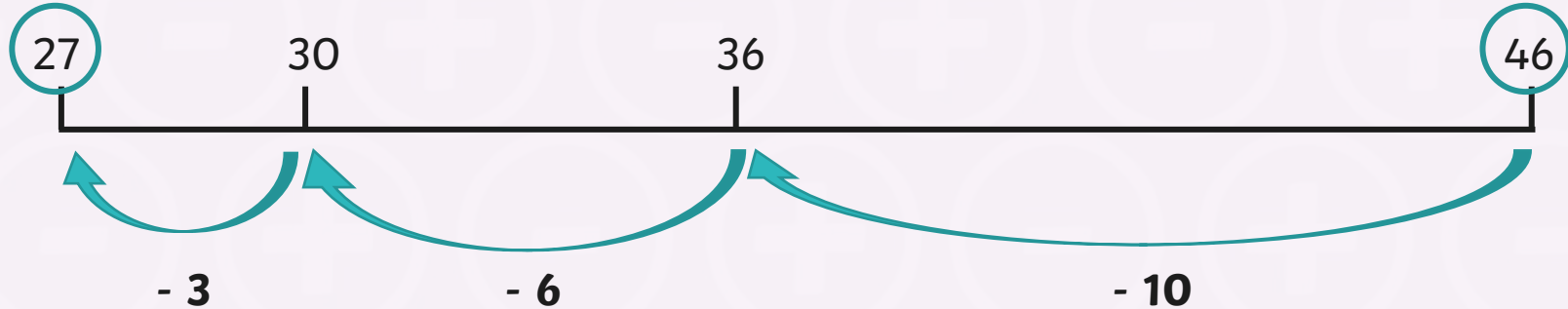


First, I subtracted the tens.  
Next, I partitioned the ones to find  
the nearest ten.  
Then, I subtracted the rest of the ones.

$$46 - 19 = 27$$

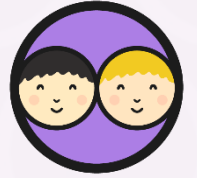
6

3





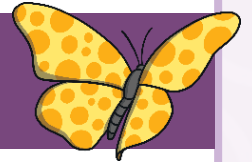
# Problem-Solving



Work with a partner.

Which strategy will you use to solve this problem?

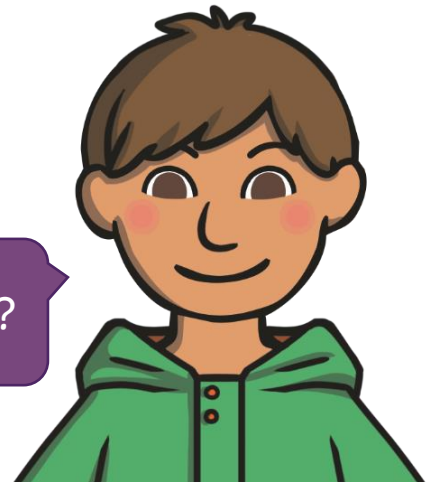
There were 23 blue butterflies and 18 red butterflies.  
How many more blue butterflies were there than red?



$$18 + 5 = 23$$



What did you do?



Can you explain why?

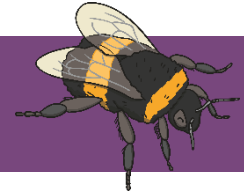
# Problem-Solving



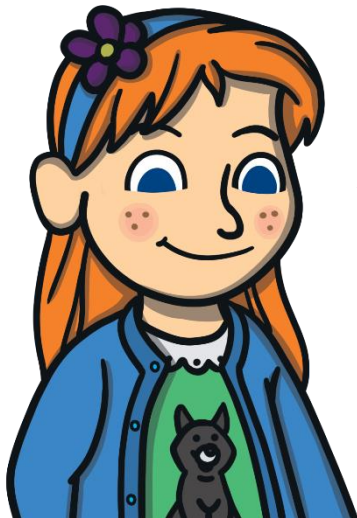
Work with a partner.

How will you solve this problem?

There were 47 bees and 21 ladybirds.  
How many fewer ladybirds were there?



$$47 - 26 = 21$$

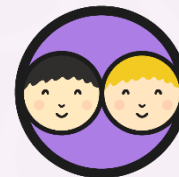


Did you find your answer quickly?

Would a different strategy be more efficient?



# Problem-Solving



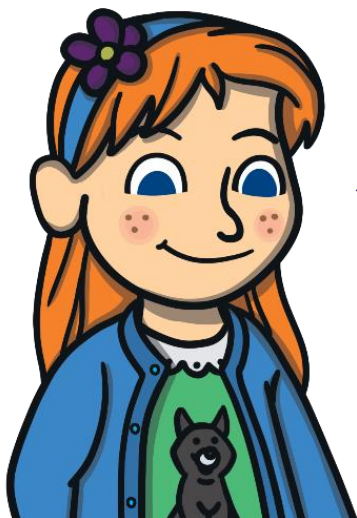
Work with a partner.

Which strategy will help you to solve this problem?



There were 31 ants and 17 beetles.  
What was the difference between the number of ants and beetles?

$$31 - 14 = 17$$



Did your strategy work well for you?

Should you try a different way?



# Choosing Subtraction Strategies



## Choosing Subtraction Strategies

To choose effective subtraction strategies.



We saw lots of butterflies.



16 orange.



23 pink.



How many fewer orange butterflies did we see?

$$23 - \square = 16$$



I saw 12 ladybirds.



I saw 37 ants.



What was the difference?

$$37 - \square = 12$$



There are 42 caterpillars and 28 beetles.  
How many more caterpillars are there?



$$42 - \square = 28$$



Choose two gifts. What is the difference between the prices?

The difference between  and  is £ .

The difference between  and  is £ .

## Choosing Subtraction Strategies

To choose effective subtraction strategies.

We saw lots of butterflies.



37 orange.



44 pink.



How many fewer orange butterflies did we see?

$$44 - \square = 37$$

I saw 15 ladybirds.



I saw 59 ants.



What was the difference?

$$59 - \square = 35$$

There are 63 caterpillars and 26 beetles.  
How many more caterpillars are there?



$$63 - \square = 26$$

Choose two gifts. What is the difference between the prices?



The difference between  and  is £ .

The difference between  and  is £ .

The difference between  and  is £ .

## Subtraction Strategies

To choose effective subtraction strategies.

We saw lots of butterflies.



65 orange.



48 pink.



How many fewer orange butterflies did we see?

$$65 - \square = 48$$

I saw 15 ladybirds.



I saw 53 ants.



What was the difference?

$$96 - \square = 53$$

There are 74 caterpillars and 37 beetles.  
How many more caterpillars are there?



$$74 - \square = 37$$



The difference between:

£  and  is £ .

£  and  is £ .

£  and  is £ .








## Diving into Mastery

Dive in by completing your own activity!





**Choosing Subtraction Strategies**

Can you help us with our minibeast quiz?

Samira Adam

Find the difference between the butterflies and ladybirds.

  $52 - \square = 47$        $47 + \square = 52$  






Which two minibeasts have the greatest difference?  
 and  have a difference of .

Which two minibeasts have the smallest difference?  
 and  have a difference of .

Pick 2 minibeasts and complete the sentences.

There are  more  than .

There are  more  than .

 s.  
  
  
  
  
tles is  
alue.  
words:  
an

# Insects Everywhere



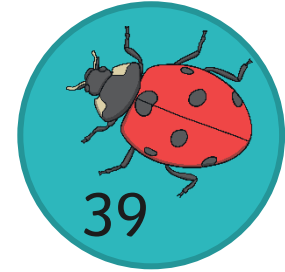
Work with a partner.

Choose 2 numbers.

Use different strategies to find the difference between them.

Which strategy worked best?

Can you explain why?



# Aim



- To choose effective subtraction strategies.

# Success Criteria

- I can use known number facts to subtract.
- I can count steps between numbers to find the difference.
- I can subtract using a number line.

