

Maths Training Primary

Marcus Adams and Paul Randell

European School RheinMain

30th August 2023



Europäische Schule RheinMain
The European School

Introductions

Marcus Adams

Deputy Director Primary - European School RheinMain

Intermath WG member since 2019

United Kingdom, 5 years UK, 10 years Germany

Paul Randell

ICT Coordinatior and P5EN Teacher

Digital Support Group and Interactive Pages since 2021

Canada, 1 year Canada, 11 years Germany

Purpose of today...

To discuss the current status of maths within our system as well as exploring practical uses of maths linked to the resources we have within the European School System.

To be confident with the new developments, and be inspired to have a greater love for maths in the upcoming school year.

Agenda for Today

- ▶ Intermath - State of Play -
Marcus Adams - 20-30 minutes
- ▶ Interactive Pages and Matific -
Paul Randell - 20-30 minutes
- ▶ Maths across the school -
Marcus Adams - 20-30 minutes

What you need...

- ▶ Paper
- ▶ Material to write with
- ▶ My Mobile Number:
004915128915538

Warm up...

Think of three numbers

Why did you choose these numbers?

Is there a relevance?

Why is our relationship with numbers important?

My answers... (36)

▶ 29

▶ 707

▶ 2

My daughters answers (4)

▶ 1

▶ 4

▶ 100

How is this adaptable in the classroom?

- ▶ Talk about numbers.
- ▶ Looking at the relevance and the conceptual understanding.
- ▶ Allows for the development of place value and number work.
- ▶ Adds relevance and purpose to numbers not just a 1+1 format.

Intermath

► What do we think of Intermath?



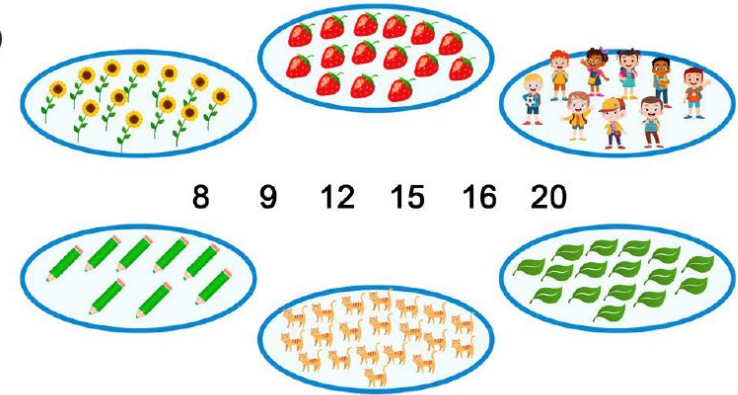
Intermath - State of Play

- ▶ New Curriuculum implemented 22-23 school year.
 - ▶ New P1 book released in September 2023.
 - ▶ New P2 book released in September 2024.
-
- ❑ What's new!
 - ❑ New designer!
 - ❑ Stickers!
 - ❑ No problem solving but ,logical challenge pages'
 - ❑ Every learning objective has at least 1 page.
 - ❑ Assessment with 5 stars!

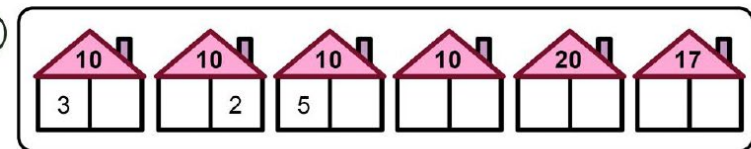


Numbers

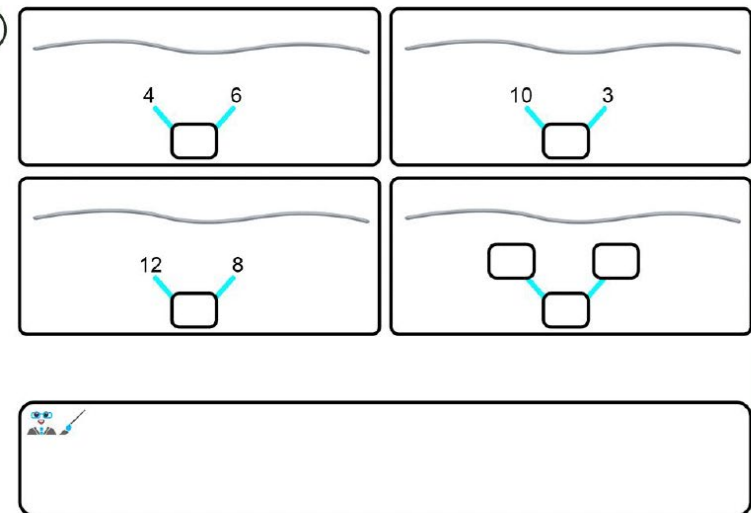
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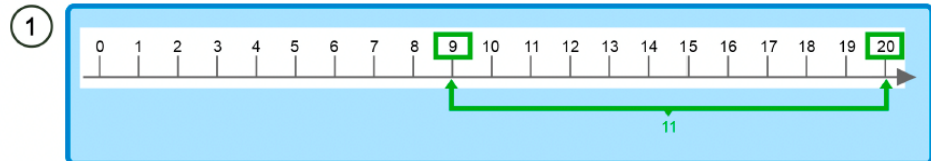
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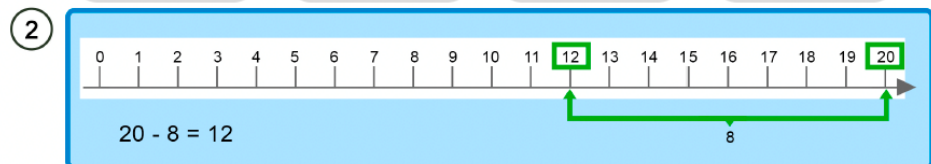
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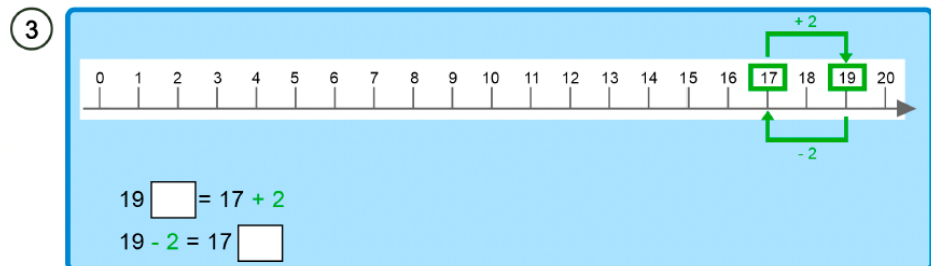
Operations



$20 - 11 = \square$	$20 - 18 = \square$	$20 - 13 = \square$	$20 - 14 = \square$
$20 - 19 = \square$	$20 - 12 = \square$	$20 - 16 = \square$	$20 - 17 = \square$
$19 - 17 = \square$	$19 - 15 = \square$	$19 - 14 = \square$	$19 - 16 = \square$
$18 - 14 = \square$	$18 - 16 = \square$	$18 - 17 = \square$	$18 - 15 = \square$



$20 - \square = 12$	$20 - \square = 18$	$20 - \square = 13$	$20 - \square = 14$
$20 - \square = 19$	$20 - \square = 12$	$20 - \square = 16$	$20 - \square = 17$

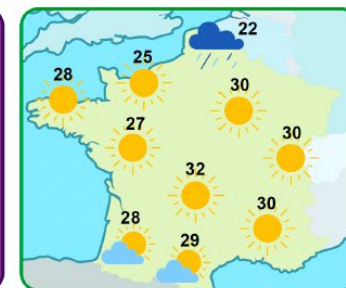


$19 \square = 17 \square$	$15 \square = 19 \square$	$18 \square = 14 \square$	$16 \square = 19 \square$
$19 \square = 14 \square$	$11 \square = 16 \square$	$18 \square = 12 \square$	$15 \square = 18 \square$

Using and applying



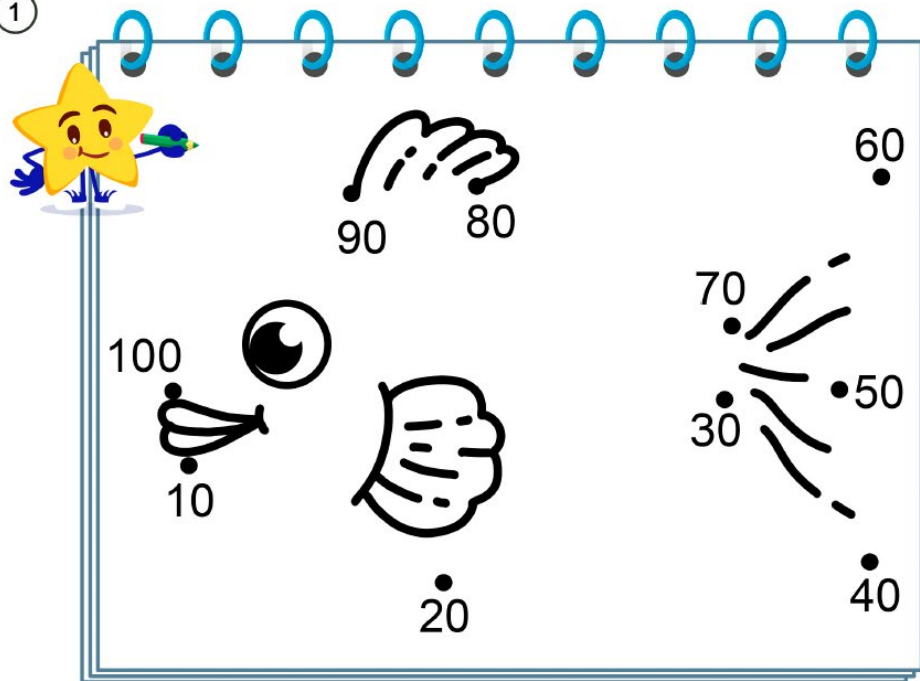
✈️ DEPARTURES ✈️				
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12:45	PARIS	UA	6385	
14:10	BARCELONA	JP	8290	
15:20	BERLIN	WP	5098	
15:50	PRAGUE	NF	087	
16:30	VIENNA	CA	2556	
17:05	ISTANBUL	ZQ	1047	
18:00	LONDON	PE	4823	
18:05	FLORENCE	CX	1302	
19:20	BRUSSELS	OA	4161	
20:10	BRUGES	QJ	4161	



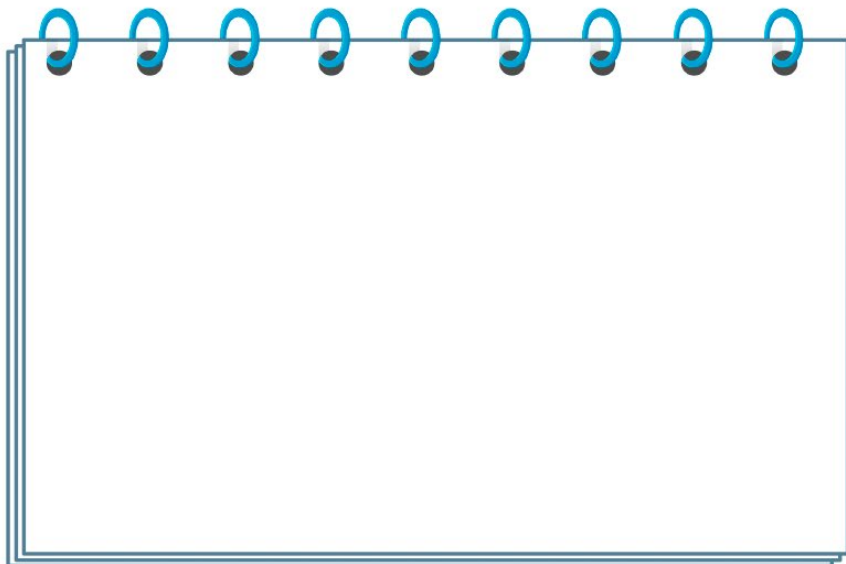
SALERNO	35km
MAIORI	15km
AMALFI	9km
NAPOLI	67km
SORRENTO	24km
POSITANO	24km

1€	2€	1€
1€	3€	2€
1€	3€	3€

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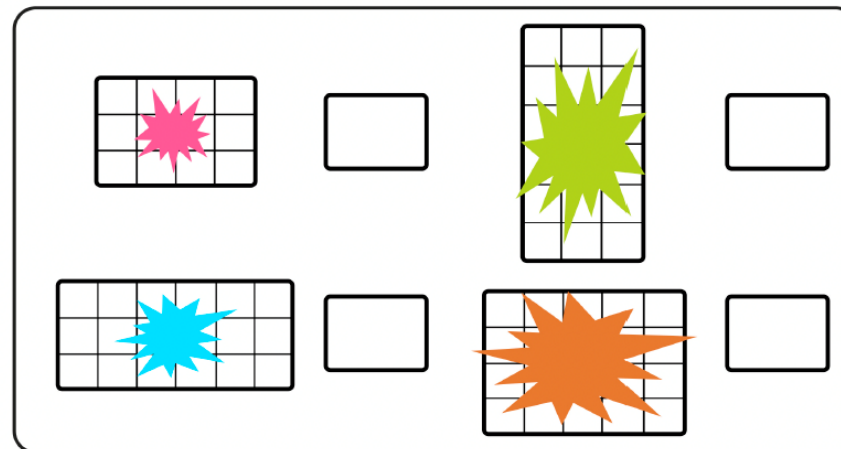


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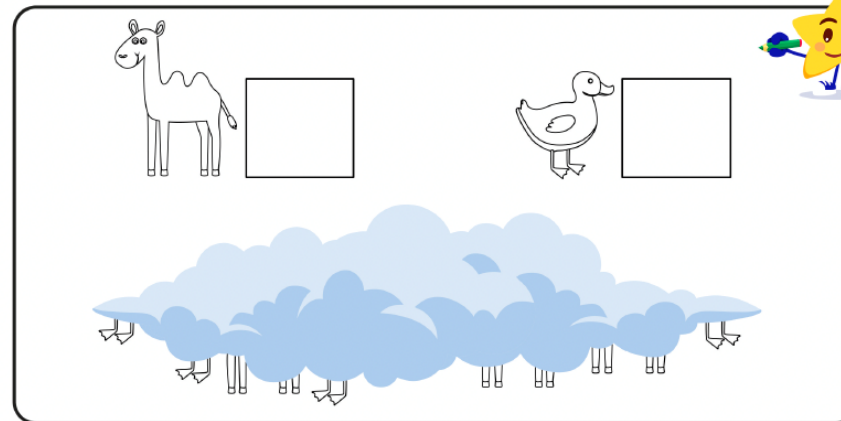


Write whole numbers from 0-20 and to 100 in multiples of 10 and units 41

①

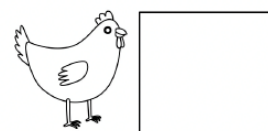
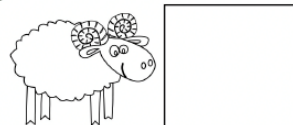


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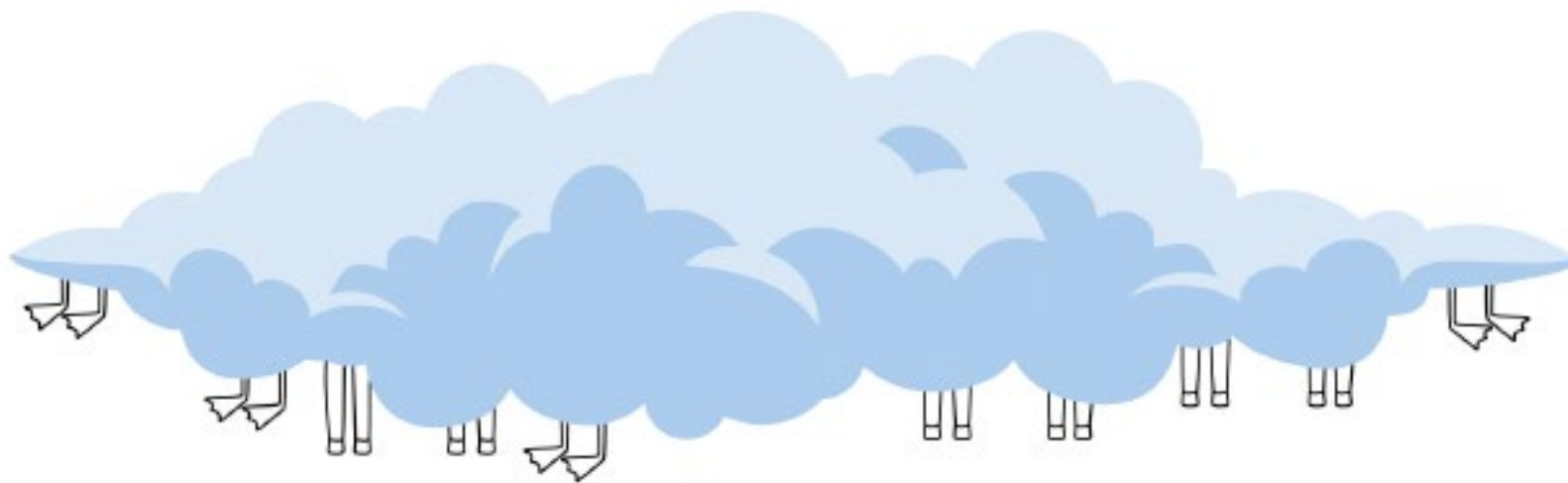
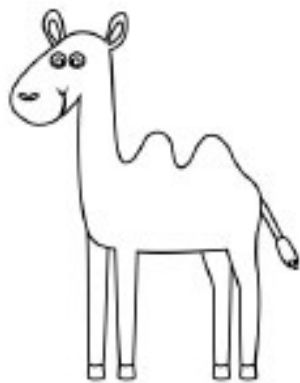


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On the farm, the farmer counts 22 legs. How many sheep and chickens do they have?



2

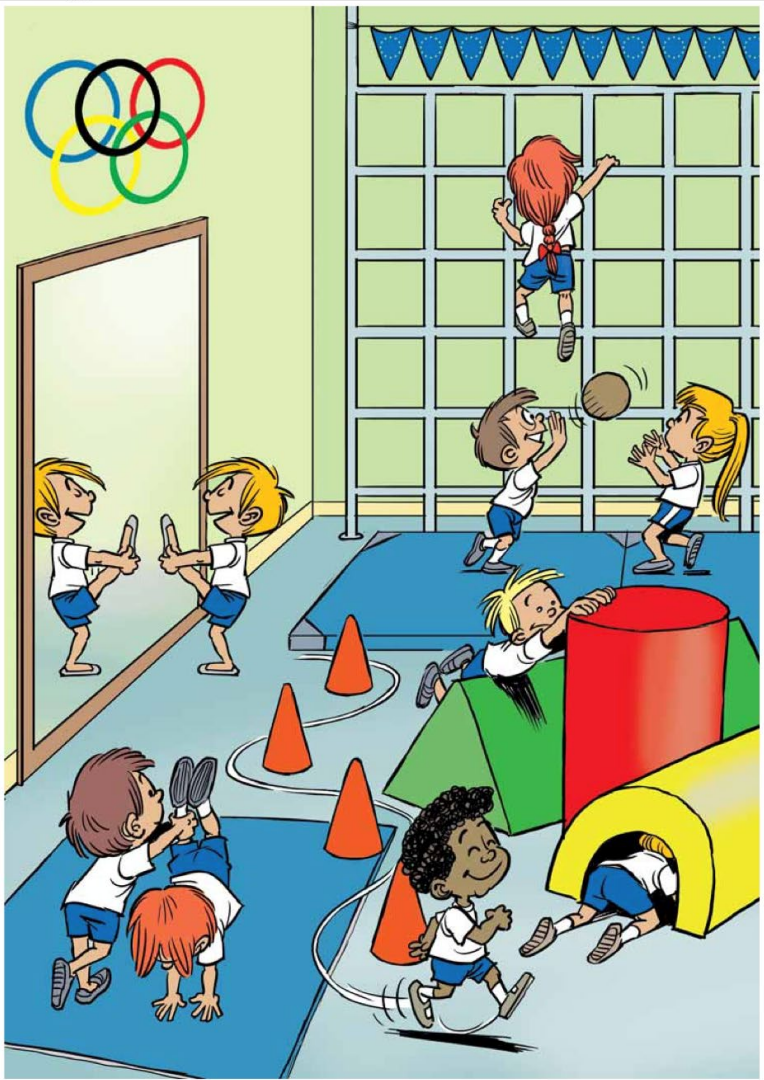


Difference old book to new book

Mathematical vocabulary



At the gym



Teachers Handbook



www.intermath.eu

Username: teacher

Password: esIM#2223

Intermath 1

Page 10

NUMBERS

Lesson objective:

Order numbers using a number line and number track to 20

Suggested key competencies:



Vocabulary:

zero, one, two, three....nine, ten, order/order, bigger/smaller than, less than, biggest/smallest,

Preparatory activities :

- Students work in groups. The teacher arranges a variety of classroom objects on each table: e.g. 8 pens, 7 books, 6 pairs of scissors, 5 exercise books. The pupils group the objects, count them and order them from the largest number of objects to the smallest, or vice versa.
- The pupils work in teams/ groups of 5. Each team will have a set of 5 number cards from sequence 1 to 10 and so on (1-5, 4-8, etc.). One member of each team shuffles the cards and distribute them. The children are not allowed to look at their cards until the teacher says: "Put your cards in order". Each team must then line up according to their card, from the smallest to the largest or vice versa, according to the number of cards they have, or vice versa, according to the order given. The first team to line up correctly wins a point. Organise several rounds. Teams can keep their deck of cards or receive a new one.

Resources:

Interlocking cubes, classroom equipment/ manipulatives, number cards

How to use this page:

Exercise 1

The students write the required number under each column of cubes.

Exercise 2

The students link the numbers to their mark on the number strip. They then find the missing numbers, write them in the empty boxes and connect them to their place on the number strip.

Exercise 3

The students order the numbers from smallest to largest by writing them in the boxes.

Exercise 4

The students write the missing numbers in the sequence given.

Extra support:

The students use concrete objects. They can also use number cards for exercises 2 and 3 and practice with them before completing the answers in the Intermath booklet.

Extra challenge:

Students shuffle cards with numbers from 0 to 10 on them and take it in turns to pick a card and arrange them in ascending order according to the previous cards.

Have a go yourself...

You have 5 minutes to create a new intermath page for your year grade (or one of your choice). Must be based on numbers:

PP- 0-10

P1 - Numbers to 20

P2 - Numbers to 100

P3 - Numbers to 1000

P4 - Numbers to 10 000

P5 - Numbers to 1 000 000

Be prepared to share your example after 5 minutes!

Key things to remember...

- ▶ It is our most important resource for learning in the system for maths.
- ▶ Used not as a replacement but alongside national materials.
- ▶ Sometimes other resources are better!
- ▶ Be part of the development give feedback!

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Maths in our Environment

Putting maths into context!



Purpose of the Session

- ▶ To think about how we can use our local locality to boost conceptual understanding in maths.
- ▶ To encourage a greater use of outdoor learning in the 23-24 school year.
- ▶ To provide simple ideas, that don't create more work for the teacher

The understanding that results from the practise of procedures is mostly an understanding of how procedures work.

Yet what we really need for is for students to gain an understanding of the underlying concepts upon which the procedures are based.

Richard Andrew (2021)

<https://www.learnimplementshare.com/why-u-1-p-2-approach.html>

...We all agree...but why don't we do more of it?

► Discussion!

In the early years...



Imagination!

But what about upper years? Or even
just use our site?



Teachers like to talk!

- ▶ When doing a problem solving task, instructions should be Less than 1 minute before getting into the activity.
- ▶ The focus is not on the procedure, it is up to the children To work that out!
- ▶ They have to think themselves about how to work it out Using the skills that they have had from the classroom.
- ▶ Presentatation of results is up to them, teacher is the Facilitator within this.
- ▶ Is the answer important?



So let's try!

Mr. Adams needs to know how many new stones are needed to repave under the bridge. How many new stones do we need to order? Only the stones in this picture have to be replaced!



FEEDBACK!

▶ 004915128915538

To recap!

- ▶ Use what we have!
- ▶ Don't go over the top!
- ▶ Let them fail...then give them the skills to achieve!
- ▶ The answer isn't important...it is how you go to the answer!
- ▶ Facilitate over frontal teaching.
- ▶ Less marking 😊

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