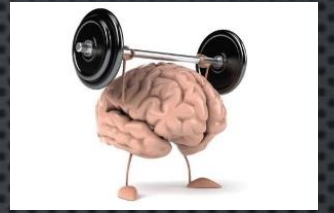


PLEASE WARM UP YOUR BRAINS



9a. Kim and Kyle have worked out this calculation.

	3	9
x		4
1	2	6
	3	


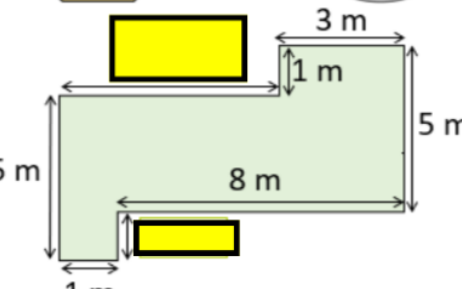


Kim


	3	9
x		4
1	5	6
	3	


Kyle

Who is incorrect? Explain their mistake.


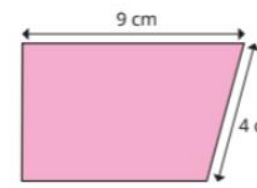
Flashback 4 Year 4 | Week 5 | Day 4

- Find the perimeter of this regular octagon. 
- Find the missing lengths. 
- $25 \times 7 = 50 \times 7 \div$ 
-  is shaded.






I have enough information to work out the perimeter of this shape.

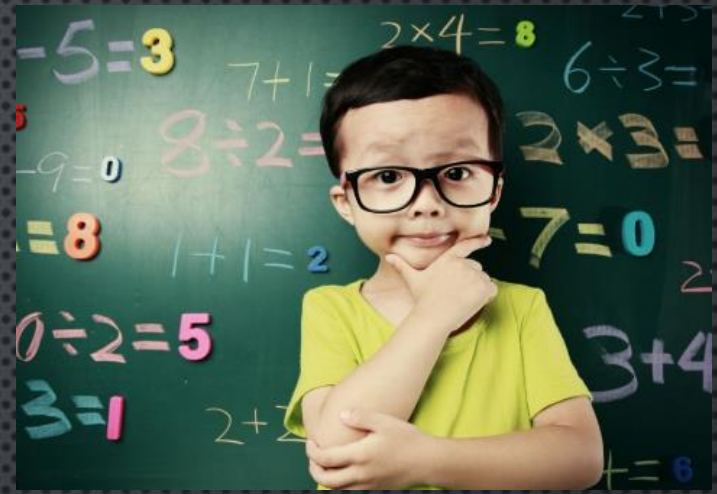



Do you agree with Tiny?
Explain your answer.



- **AGENDA**
- SHORT PRESENTATION EXPLAINING THE CURRICULUM AND OUR SCHEME OF LEARNING
- TIME TO EXPLORE – TABLES ARE SET UP WITH RESOURCES THAT WE USE TO DELIVER MATHS BY YEAR GROUP AND SOME OF MY COLLEAGUES HAVE VERY KINDLY OFFERED TO BE HERE TO ANSWER ANY QUESTIONS YOU MAY HAVE.

PARENT MEETING



HOW WE TEACH MATHS

8TH MARCH 2023

SIMON WYKE

MATHS SUBJECT LEADER

WHO ENJOYS MATHS?

- ACCORDING TO RESEARCH BY THE UNIVERSITY OF CAMBRIDGE, “MANY CHILDREN AND ADULTS EXPERIENCE FEELINGS OF ANXIETY, APPREHENSION, TENSION OR DISCOMFORT WHEN CONFRONTED BY A MATHS PROBLEM.”
- MATHS ANXIETY OR A FEAR OF MATHS IS COMMON, AND ALTHOUGH IT CAN LIMIT PERFORMANCE IN CERTAIN SITUATIONS AND CONTEXTS, IT’S NOT LINKED TO INTELLIGENCE OR ABILITY. IN ONE STUDY INVOLVING CHILDREN, MOST OF THOSE WITH HIGH MATHS ANXIETY SCORED NORMAL TO HIGH RESULTS ON CURRICULUM MATHS TESTS.
- MATHS ANXIETY IS MORE COMMON IN WOMEN THAN MEN WHICH IS WHY THEY ARE UNDERREPRESENTED IN STEM SUBJECTS.

THE NATIONAL CURRICULUM

- MATHEMATICS IS A CREATIVE AND HIGHLY INTERCONNECTED DISCIPLINE THAT HAS BEEN DEVELOPED OVER CENTURIES, PROVIDING THE SOLUTION TO SOME OF HISTORY'S MOST INTRIGUING PROBLEMS. IT IS ESSENTIAL TO EVERYDAY LIFE, CRITICAL TO SCIENCE, TECHNOLOGY AND ENGINEERING, AND NECESSARY FOR FINANCIAL LITERACY AND MOST FORMS OF EMPLOYMENT. A HIGH-QUALITY MATHEMATICS EDUCATION THEREFORE PROVIDES A FOUNDATION FOR UNDERSTANDING THE WORLD, THE ABILITY TO REASON MATHEMATICALLY, AN APPRECIATION OF THE BEAUTY AND POWER OF MATHEMATICS, AND A SENSE OF ENJOYMENT AND CURIOSITY ABOUT THE SUBJECT.

THE NATIONAL CURRICULUM FOR MATHEMATICS AIMS TO ENSURE THAT ALL PUPILS:


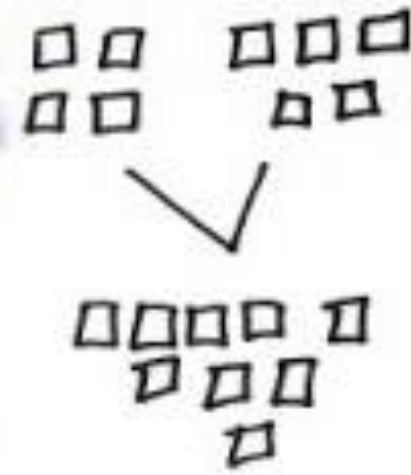

- BECOME FLUENT IN THE FUNDAMENTALS OF MATHEMATICS, INCLUDING THROUGH VARIED AND FREQUENT PRACTICE WITH INCREASINGLY COMPLEX PROBLEMS OVER TIME, SO THAT PUPILS DEVELOP CONCEPTUAL UNDERSTANDING AND THE ABILITY TO RECALL AND APPLY KNOWLEDGE RAPIDLY AND ACCURATELY
- REASON MATHEMATICALLY BY FOLLOWING A LINE OF ENQUIRY, CONJECTURING RELATIONSHIPS AND GENERALISATIONS, AND DEVELOPING AN ARGUMENT, JUSTIFICATION OR PROOF USING MATHEMATICAL LANGUAGE
- CAN SOLVE PROBLEMS BY APPLYING THEIR MATHEMATICS TO A VARIETY OF ROUTINE AND NON-ROUTINE PROBLEMS WITH INCREASING SOPHISTICATION, INCLUDING BREAKING DOWN PROBLEMS INTO A SERIES OF SIMPLER STEPS AND PERSEVERING IN SEEKING SOLUTIONS



WHY WHITE ROSE MATHS?

- WHITE ROSE MATHS IS AN ORGANISATION THAT PROVIDES MATHS RESOURCES AND SCHEMES OF LEARNING FOR PUPILS OF ALL AGES, FROM EARLY YEARS TO SECONDARY SCHOOL. THE SCHEMES OF LEARNING (SOL) OUTLINE YEARLY FRAMEWORKS THAT BREAK DOWN WHAT CHILDREN NEED TO LEARN DURING EACH WEEK OF EACH TERM TO MASTER THE LEARNING OBJECTIVES LAID OUT BY THE NATIONAL CURRICULUM. AND RESOURCES THAT ARE ALIGNED WITH THE WHITE ROSE MATHS FRAMEWORKS ARE DESIGNED TO BE ENJOYABLE, ENGAGING AND VARIED, TO HELP PUPILS DEVELOP A LOVE OF LEARNING AND WORK TOWARDS MASTERY WITH DIFFERENTIATED RESOURCES.
- IT FOLLOWS A CONCRETE, PICTORIAL AND ABSTRACT MODEL.

CONCRETE – PICTORIAL – ABSTRACT

<p>①</p> 		$4 + 5 = 9$
<p>②</p> 		

YEAR 3 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				Number Multiplication and division A				
Spring	Number Multiplication and division B			Measurement Length and perimeter		Number Fractions A			Measurement Mass and capacity			
Summer	Number Fractions B	Measurement Money		Measurement Time			Geometry Shape		Statistics		Consolidation	

PLACE VALUE

New scheme steps
Represent numbers to 100
Partition numbers to 100
Number line to 100
Hundreds
Represent numbers to 1,000
Partition numbers to 1,000
Flexible partitioning of numbers to 1000
Hundreds, tens and ones
Find 1, 10 or 100 more or less
Number line to 1,000
Estimating on a number line to 1,000
Compare numbers to 1,000
Order numbers to 1,000
Count in 50s

ADD AND SUBTRACT

New scheme steps
Apply number bonds within 10
Add and subtract 1s
Add and subtract 10s
Add and subtract 100s
Spot the pattern
Add 1s across a 10
Add 10s across a 100
Subtract 1s across a 10
Subtract 10s across a 100
Make connections
Add two numbers (no exchange)
Subtract two numbers (no exchange)
Add two numbers (across a 10)
Add two numbers (across a 100)
Subtract two numbers (across a 10)
Subtract two numbers (across a 100)
Add 2-digit and 3-digit numbers
Subtract a 2-digit number from a 3-digit number
Complements to 100
Estimate answers
Inverse operations
Make decisions

MULTIPLY AND DIVIDE

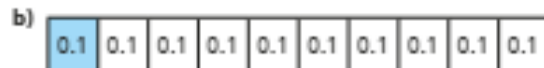
New scheme steps
Multiplication - equal groups
Use arrays
Multiples of 2
Multiples of 5 and 10
Sharing and grouping
Multiply by 3
Divide by 3
The 3 times-table
Multiply by 4
Divide by 4
The 4 times-table
Multiply by 8
Divide by 8
The 8 times-table
The 2, 4 and 8 times-tables

Equivalent fractions and decimals (tenths)

1 Use the bar models to complete the sentences.



The fraction shaded is



The decimal shaded is

What do you notice?

2 How much of each bar model is shaded?

Give your answer as a fraction and as a decimal.





3 Shade the bar models to show each number.



4 What fractions and decimals do the counters represent?



fraction =

decimal =



fraction =

decimal =



fraction =

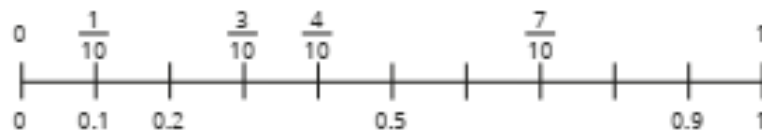
decimal =



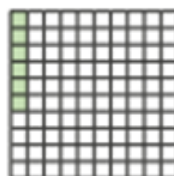
fraction =

decimal =

5 Complete the number line.



- 6 Huan says he has coloured 0.6 of the hundred square.



Explain the mistake that Huan has made.

- 7 What fractions and decimals do the ten frames represent?



fraction = decimal =



fraction = decimal =

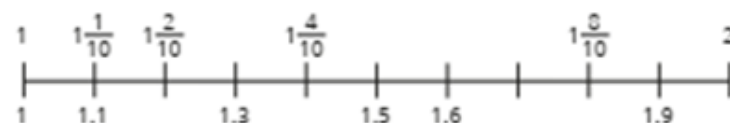


fraction = decimal =

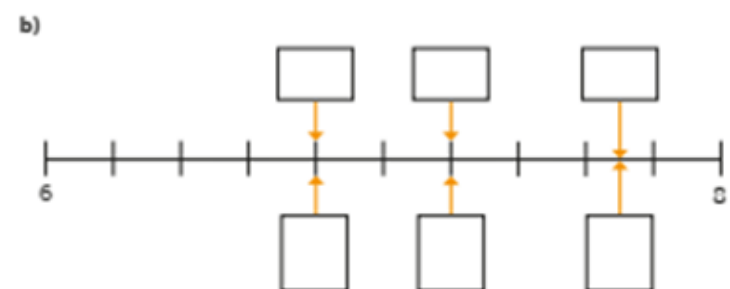


fraction = decimal =

- 8 Complete the number line.



- 9 What numbers are the arrows pointing to?
Give your answers as decimals and as mixed numbers.



RECEPTION (EYFS)



- CHILDREN SHOULD BE ABLE TO COUNT CONFIDENTLY, DEVELOP A DEEP UNDERSTANDING OF THE NUMBERS TO 10, THE RELATIONSHIPS BETWEEN THEM AND THE PATTERNS WITHIN THOSE NUMBERS.
- BY PROVIDING FREQUENT AND VARIED OPPORTUNITIES TO BUILD AND APPLY THIS UNDERSTANDING - SUCH AS USING MANIPULATIVES, INCLUDING SMALL PEBBLES AND TENS FRAMES FOR ORGANISING COUNTING - CHILDREN WILL DEVELOP A SECURE BASE OF KNOWLEDGE AND VOCABULARY FROM WHICH MASTERY OF MATHEMATICS IS BUILT.
- IN ADDITION, IT IS IMPORTANT THAT THE CURRICULUM INCLUDES RICH OPPORTUNITIES FOR CHILDREN TO DEVELOP THEIR SPATIAL REASONING SKILLS ACROSS ALL AREAS OF MATHEMATICS INCLUDING SHAPE, SPACE AND MEASURES.
- IT IS IMPORTANT THAT CHILDREN DEVELOP POSITIVE ATTITUDES AND INTERESTS IN MATHEMATICS, LOOK FOR PATTERNS AND RELATIONSHIPS, SPOT CONNECTIONS, 'HAVE A GO', TALK TO ADULTS AND PEERS ABOUT WHAT THEY NOTICE AND NOT BE AFRAID TO MAKE MISTAKES.
- AT ST JAMES' WE HAVE A DAILY MATHS ACTIVITIES FOR THE CHILDREN. WE FOCUS ON NUMBERS 1-10 IN THE AUTUMN TERM AND THEN 10-20 IN THE SPRING AND SUMMER TERMS.

HOW YOU CAN SUPPORT YOUR CHILD IN MATHS

- IF YOUR NOT SURE, ALWAYS FEEL FREE TO ASK YOUR CHILD'S TEACHER AS MATHS TEACHING HAS CHANGED A LOT SINCE WE WERE AT SCHOOL.
- BE POSITIVE ABOUT MATHS AND NEVER ADMIT YOU DON'T LIKE IT OR YOU ARE BAD AT IT. THIS SENDS THE WRONG MESSAGE TO YOUR CHILD.

TOP TIPS FOR SUPPORTING AND HELPING YOUR CHILD IN MATHS.

- TEACH THEM THE TIME AND REGULARLY REVISIT IT. WE TEACH IT ACROSS THE SCHOOL BUT IT NEEDS CONSTANT REINFORCEMENT FOR IT TO STICK.
- ALLOW THEM TO USE MONEY. SAVE MONEY, BUY THINGS AS THIS HELPS THEM UNDERSTAND IT BETTER WHEN IT IS TAUGHT IN SCHOOL. THE AMOUNT OF CHILDREN WHO HAVE NO RECOGNITION OF COINS IS ASTOUNDING.
- MEASURING THINGS WHILST BAKING OR COOKING IS A VERY GOOD WAY OF TEACHING CAPACITY AND MASS.

TOP TIPS FOR SUPPORTING AND HELPING YOUR CHILD IN MATHS.



- NUMBER BONDS TO 10 (NUMBERBLOCKS TV SHOW) OR USING ONE OF THE RESOURCES ON OUR GUIDE SHEET.
- MULTIPLICATION TABLES (UP TO 12x) USING THE RESOURCES ON OUR GUIDE SHEET.

Multiplication Square

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

THANK YOU FOR YOUR INTEREST IN HOW WE TEACH MATHS.

- RESOURCES AND PRESENTATIONS BEING ADDED TO OUR WEBSITE:
- PRESENTATION FROM TODAY
- CALCULATION POLICY FOR ADDITION AND SUBTRACTION
- CALCULATION POLICY FOR MULTIPLICATION AND DIVISION
- MATHS RESOURCES SHEET WITH LINKS



- EXAMPLES OF RESOURCES AND MANIPULATIVES USED ACROSS THE SCHOOL.



