

22.1.21

LI: To apply my knowledge to solve reasoning problems

Spot the mistake

Alex and Dexter have both completed the same multiplication.



Alex

	H	T	O
	2	3	4
×			6
1	2	0	4

2 2



Dexter

	H	T	O
	2	3	4
×			6
1	4	0	4

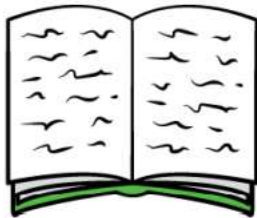
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Who has the correct answer?
What mistake has been made by one of the children?

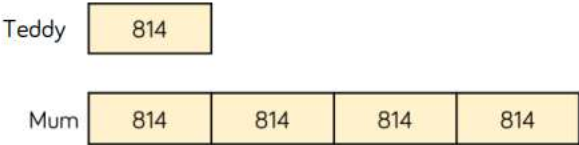
Dexter has the correct answer.

Alex has forgotten to add the two hundreds she exchanged from the tens column.

Teddy and his mum were having a reading competition.
In one month, Teddy read 814 pages.



His mum read 4 times as many pages as Teddy.
How many pages did they read altogether?
How many fewer pages did Teddy read?
Use the bar model to help.



$814 \times 5 = 4,070$

They read 4,070 pages altogether.

 $814 \times 3 = 2,442$

Teddy read 2,442 fewer pages than his mum.

Compare the statements using $<$, $>$ or $=$

$$48 \div 4 \bigcirc 36 \div 3$$

$$52 \div 4 \bigcirc 42 \div 3$$

$$60 \div 3 \bigcirc 60 \div 4$$

$=$

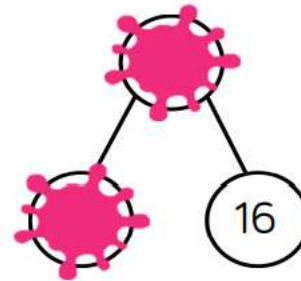
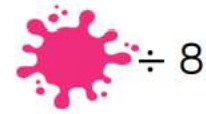
$<$

$>$

Amir partitioned a number to help him divide by 8

Some of his working out has been covered with paint.

What number could Amir have started with?



The answer could be 56 or 96

Dora is calculating $72 \div 3$
Before she starts, she says the
calculation will involve an exchange.

Do you agree?
Explain why.

Dora is correct
because 70 is not a
multiple of 3 so
when you divide 7
tens between 3
groups there will be
one remaining
which will be
exchanged.

Use $<$, $>$ or $=$ to complete the
statements.

$$69 \div 3 \bigcirc 96 \div 3$$

$$96 \div 4 \bigcirc 96 \div 3$$

$$91 \div 7 \bigcirc 84 \div 6$$

$<$

$<$

$<$

Eva has 96 sweets.
She shares them into equal groups.
She has no sweets left over.
How many groups could Eva have shared
her sweets into?

Possible answers

$$96 \div 1 = 96$$

$$96 \div 2 = 48$$

$$96 \div 3 = 32$$

$$96 \div 4 = 24$$

$$96 \div 6 = 16$$

$$96 \div 8 = 12$$

Which calculation is the odd one out?
Explain your thinking.

$$64 \div 8$$

$$77 \div 4$$

$$49 \div 6$$

$$65 \div 3$$

$64 \div 8$ could be the odd one out as it is the only calculation without a remainder.

Make sure other answers are considered such as $65 \div 3$ because it is the only one being divided by an odd number.

Jack has 15 stickers.



He sorts his stickers into equal groups but has some stickers remaining.
How many stickers could be in each group and how many stickers would be remaining?

Dora and Eva are planting bulbs.
They have 76 bulbs altogether.

Dora plants her bulbs in rows of 8 and has 4 left over.
Eva plants her bulbs in rows of 10 and has 2 left over.

How many bulbs do they each have?

There are many solutions, encourage a systematic approach.
e.g. 2 groups of 7, remainder 1
3 groups of 4, remainder 3
2 groups of 6, remainder 3

Dora has 44 bulbs.
Eva has 32 bulbs.