

RECALL

$$\begin{array}{r} 2,345,678 \\ + 1,234,567 \\ \hline 3,579,135 \end{array}$$

$$\begin{array}{r} 2,345,678 \\ - 1,234,567 \\ \hline 1,180,245 \end{array}$$

Have I calculated these sums correctly? If not, what is wrong?

L.O. SOLVE ADDITION AND SUBTRACTION MULTI
STEP PROBLEMS IN CONTEXTS, DECIDING WHICH
OPERATIONS AND METHODS TO USE AND WHY.

- **SOME WILL EVEN:** Solve problems using inverse operations.
- **SOME WILL:** Find missing numbers in column calculations.
- **MOST WILL:** Use column method for addition and subtraction.
- **ALL WILL:** Use a number line to calculate addition and subtraction.

GUIDED PRACTICE - MY TURN

Discover

Queen Victoria was crowned in 1837 and reigned until she died in 1901.

a) How long was Queen Victoria's reign?

b) Queen Elizabeth II's reign began in 1952 and she died in 2022.

How many years were there between the end of Queen Victoria's reign and the beginning of Elizabeth II's reign?

help

Use a number line or column to calculate.



Who had the longest reign between the two queens?

GUIDED PRACTICE - YOUR TURN

Discover

Elizabeth I became Queen in 1558. She was monarch until she died, 45 years later.

a) In what year did Queen Elizabeth I die?

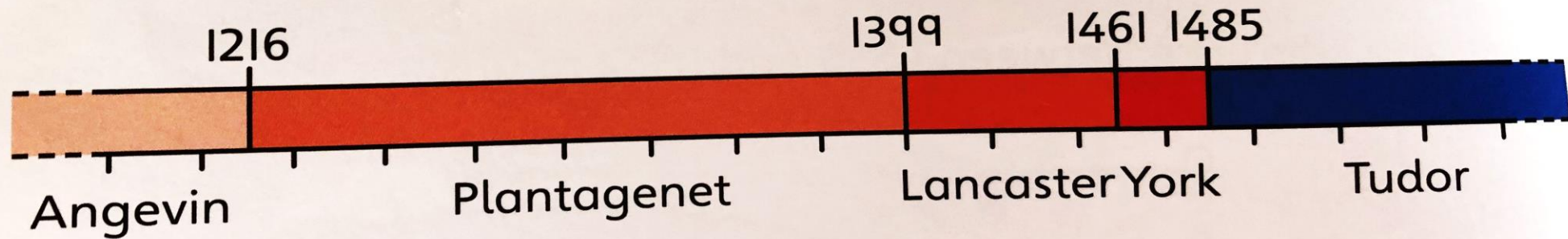
b) Queen Elizabeth II's reign began in 1952 and ended in 2022. How many years were there between the beginning of Elizabeth I's reign and the beginning of Elizabeth II's reign?

help

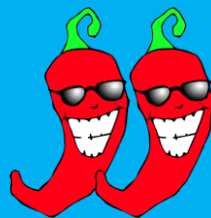
Use a number line or column to calculate.



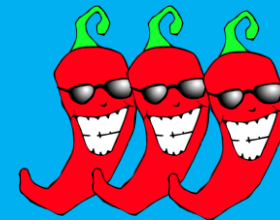
How long did Queen Elizabeth II reign for? Explain how you worked it out. Did you need a written calculation?



How long was the rule of the House of Lancaster?



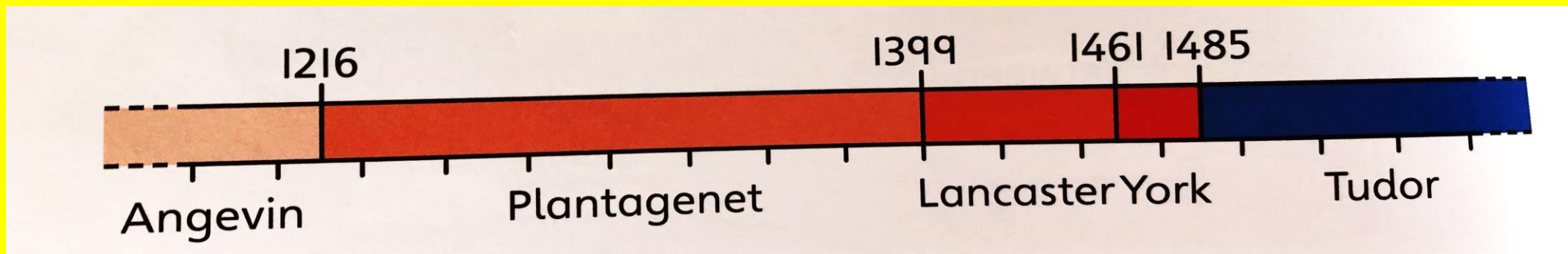
The Tudor reign lasted 118 years. When did it end?



The Angevin reign lasted 199 years. When did it begin?



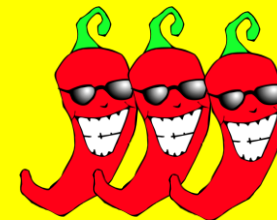
How long are the reigns in red in total?
How long are all five reigns in total?



62 years



1603



1017

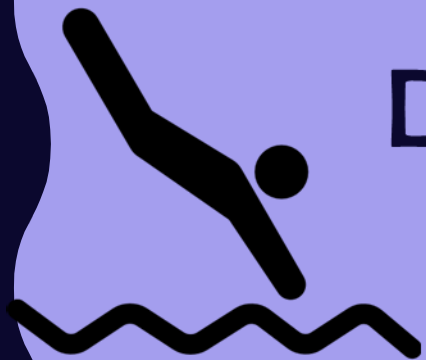


How long are the reigns in red in total?

269 years

How long are all five reigns in total?

586 years



DIVE DEEPER 1

Amelia scored 29,750 fewer points than Bella. Bella scored 15,200 points, then 21,500 points.

How many points did they score altogether?

c)

Amelia		←	→	}
Bella				

Reflect

To work out $5,000 - 1,728$, you can do $4,999 - 1,727$. Explain why.

Use a similar method to work out $50,000 - 26,304$.



- a) Write a 4-digit number using four different digits. Then reverse the digits to make a second 4-digit number.

Find the difference between your two numbers.



I wrote 2,609. The reverse is 9,062.
So, I need to work out $9,062 - 2,609$.

Th	H	T	O
9	0	6	2
- 2	6	0	9

Did your subtraction require any exchanges?

Try a few different examples. Do you always need to exchange across two columns?

Can you explain this?

- b) Now do the same with two 7-digit numbers.

Try to find a number where you will only need one exchange.

Then try to find a number where you will need two exchanges.

I am going to try to go all the way up to seven exchanges.
I wonder whether it is possible.



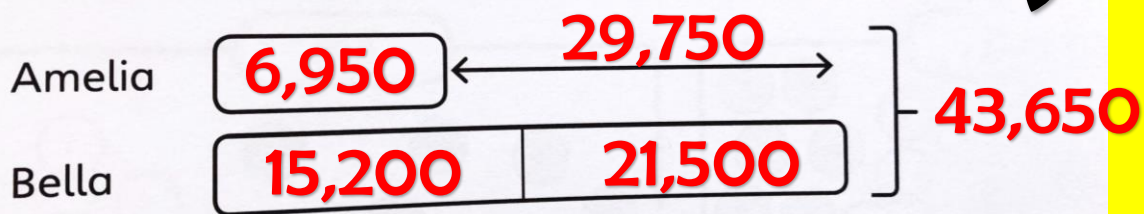


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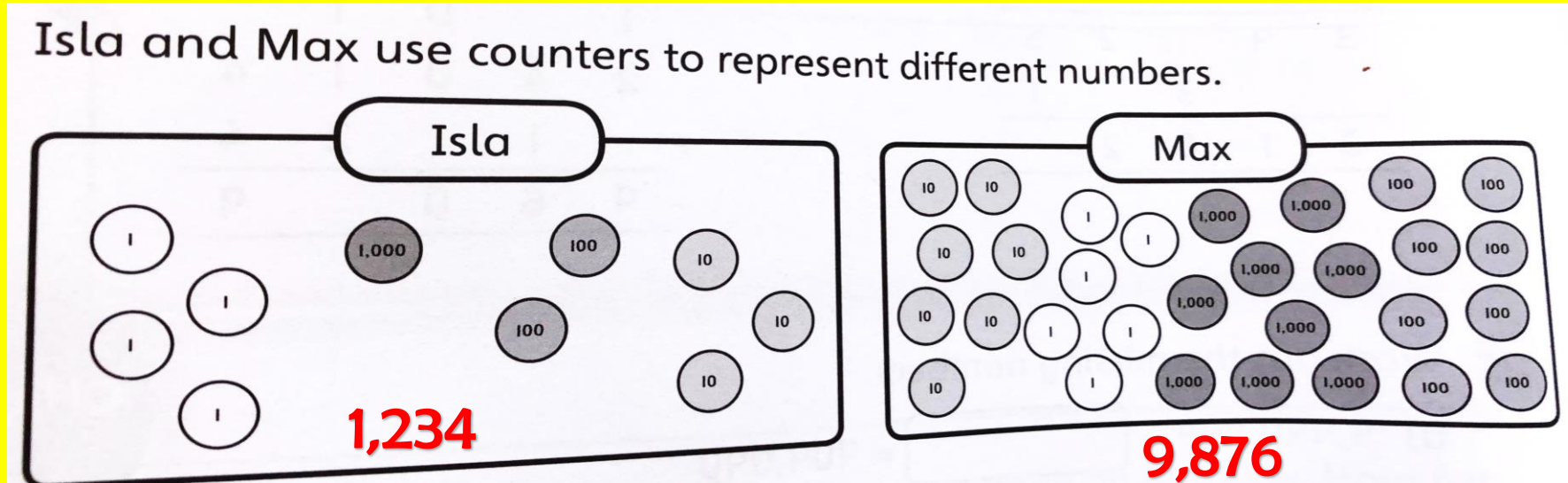
- a) Reena makes the number 14,321. How much bigger is Reena's number than Isla's number?
- b) How much bigger is Reena's number than Max's number and Isla's number combined?



DIVE DEEPER 2



d)

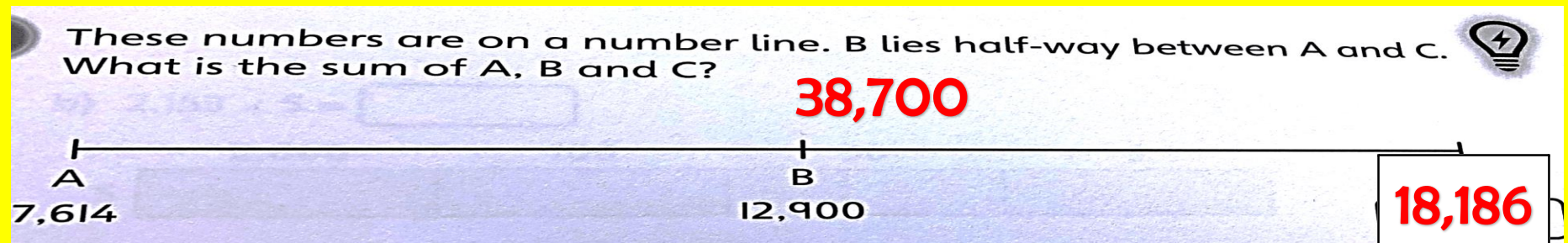


a) Reena makes the number 14,321. How much bigger is Reena's number than Isla's number?

13,087

a) How much bigger is Reena's number than Max's number and Isla's number combined?

3211





What Distance?

Here are the distances (as the crow flies) in kilometres from London to various cities in the world:

Abu Dhabi 5480 	Barcelona 1139 	Cape Town 9680 
New Delhi 6718 	Edmonton 6805 	Florence 1209 
Gothenburg 1039 	Houston 7812 	Istanbul 2501 
Jerusalem 3611 	Karachi 6314 	Launceston 17425 



What Distance?

Challenge 1

Once you have travelled the first 1000km, how much further will you have to go for each of the twelve journeys?

Rather than actually performing each calculation, could you say which you think will be the most difficult and which will be the easiest, and why?

Now create some similar questions of your own.

Challenge 2

The distance from Copenhagen to London is approximately 1000km. If you always start at Copenhagen before travelling to London for all of the journeys shown above, how far would you travel in each case?

