



Years 3 & 4 Maths Workshop

Subtraction



Expectations in Addition & Subtraction

Year 3 vs. Year 4

- I can add and subtract in my head, including a 3-digit number and ones.
 - I can add and subtract in my head, including a 3-digit number and tens.
 - I can add and subtract in my head, including a 3-digit number and hundreds.
 - I can add and subtract numbers with up to 3-digits using formal column methods.
 - I can estimate the answer to a calculation and use this and inverse operations to check answers.
 - I can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
- I can add and subtract numbers with up to 4-digits using formal column methods.
 - I can use estimating and inverse operations to check my answers.
 - I can solve two step addition and subtraction problems, using different methods and explain why I used them.

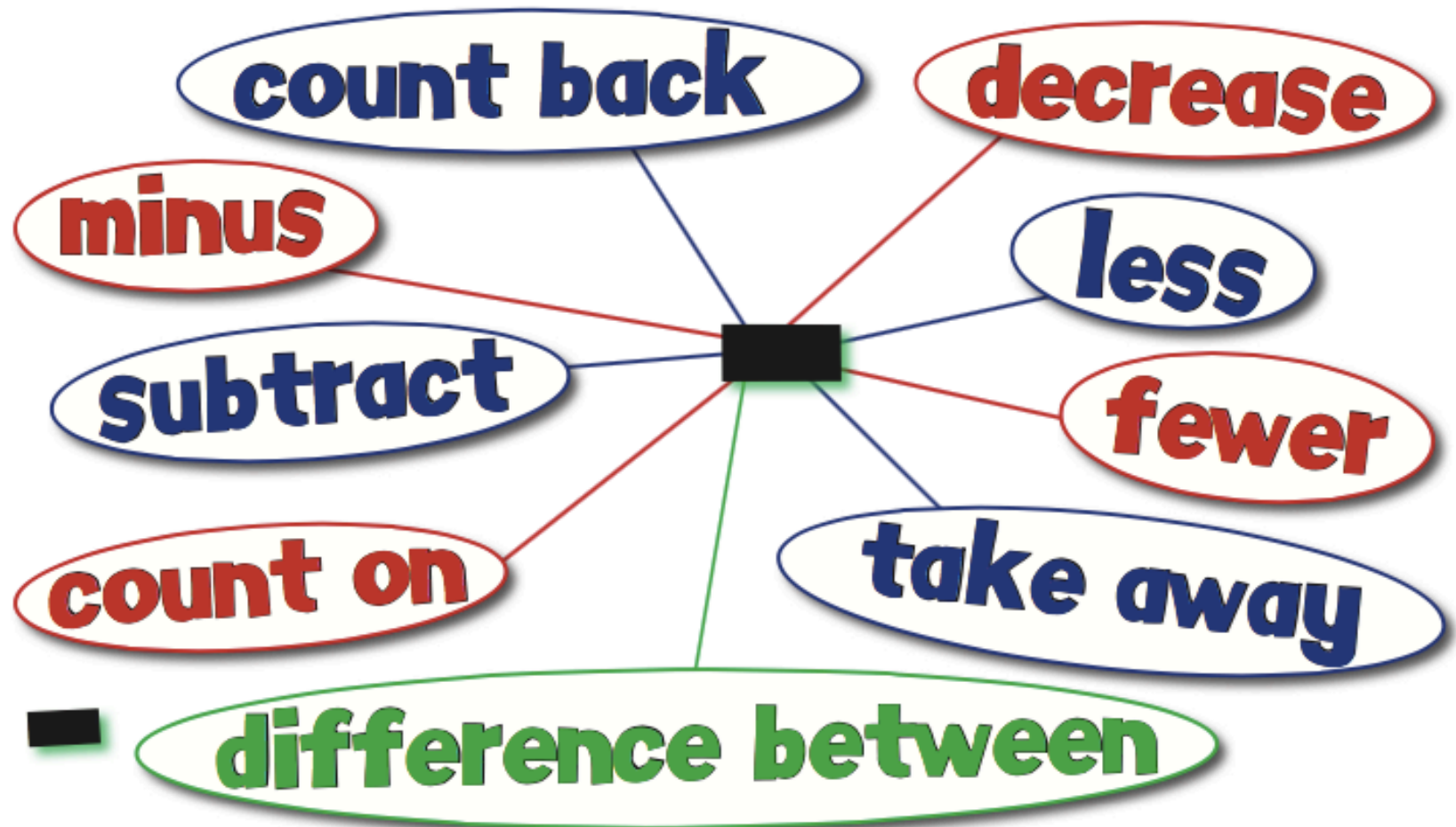


Number & Place Value links

Year 3 vs. Year 4

- I can recognise the place value of each digit of a 3-digit number (hundreds, tens and ones).
- I can solve number and word problems.
- I can find 1000 more or less than a given number.
- I can recognise the place value of each digit of a 4-digit number (thousands, hundreds, tens and ones).
- I can round numbers to the nearest 10, 100 or 1000.
- I can solve number and practical problems that involve large positive numbers.

Subtraction Vocabulary



The School Run Glossary




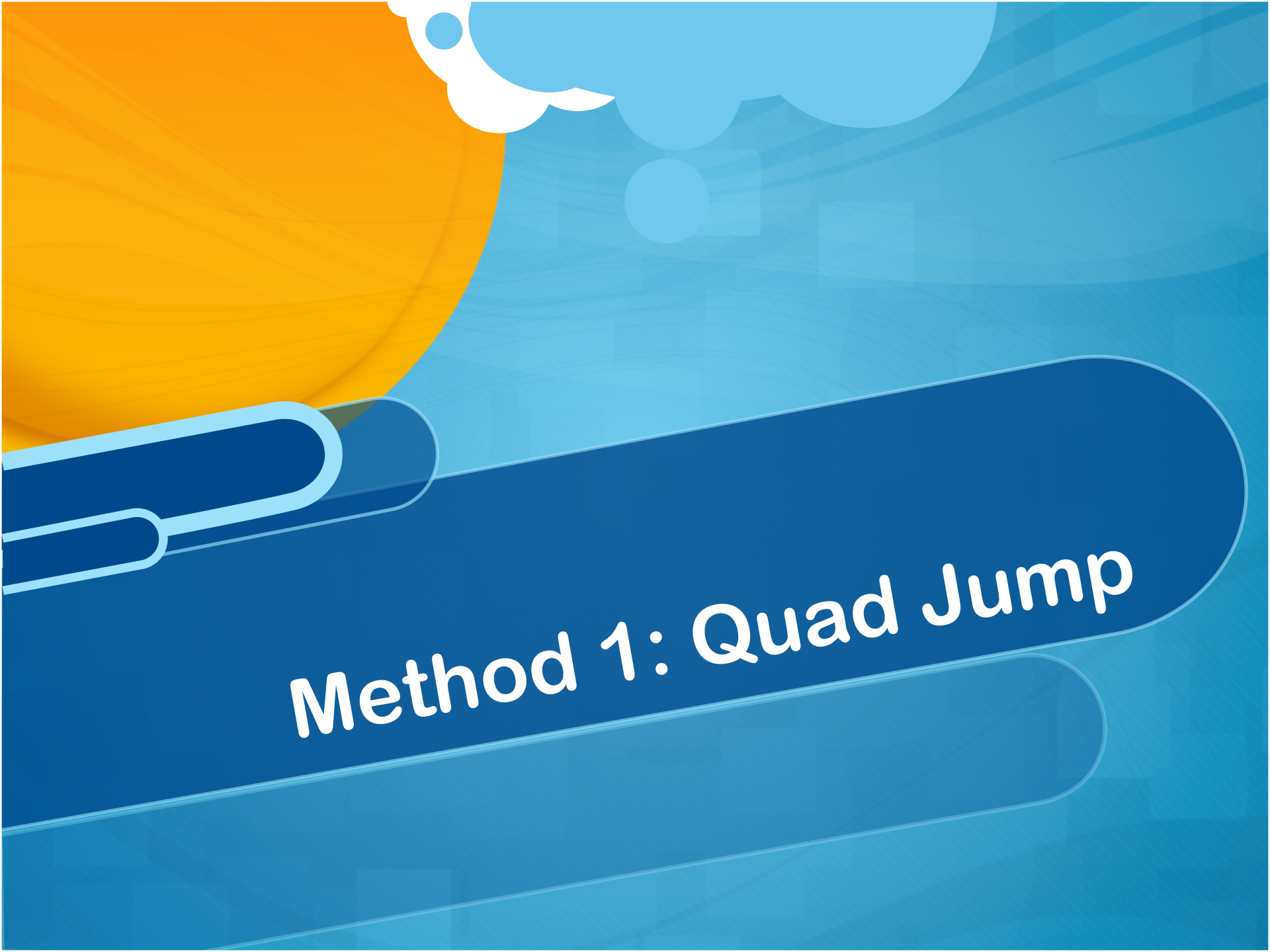
Support your child's learning journey



Why not use Column Subtraction from the very beginning?

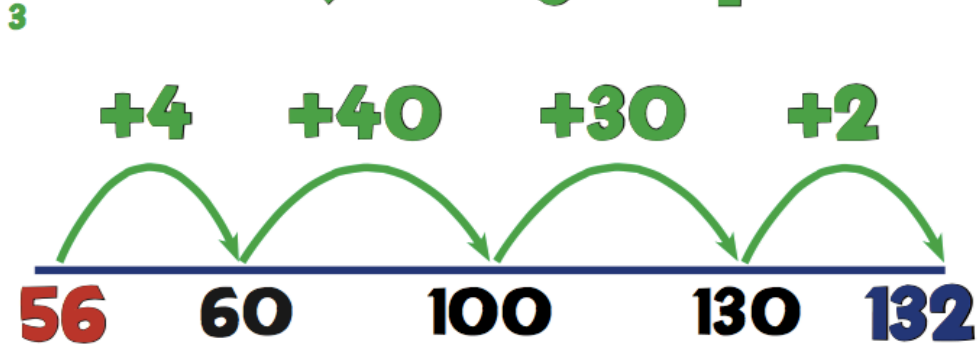
- It is a quick and efficient method for working out addition and subtraction, but the downside is that a child could use this method without having any awareness of place value (that is: they would not understand that the 3 in the tens column is actually 30). It also means that they are not learning to add and subtract multiples of 10 or 100 (e.g. $30 + 90$, $120 - 50$ etc). In order to help children understand these concepts, we use partitioning and number line strategies.

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- Once children are aware of place value and also have the ability to mentally add and subtract multiples of ten and one hundred, they will be encouraged to move onto the column method involving 'carrying' or 'exchanging' numbers, as this is the quickest method.



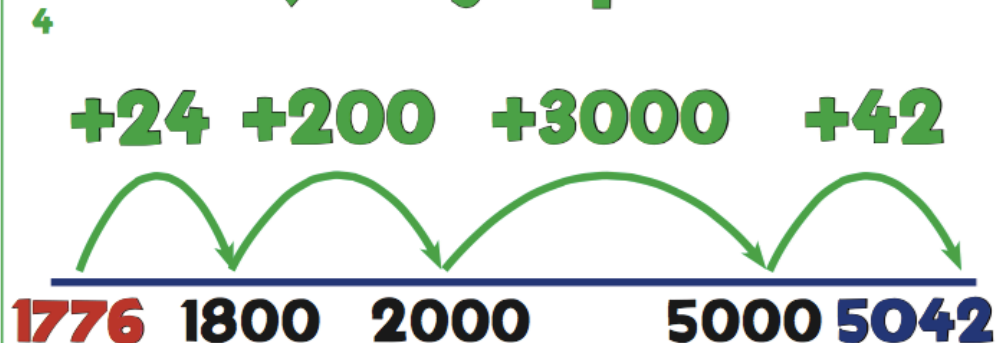
Method 1: Quad Jump

S8b: Quad Jump!



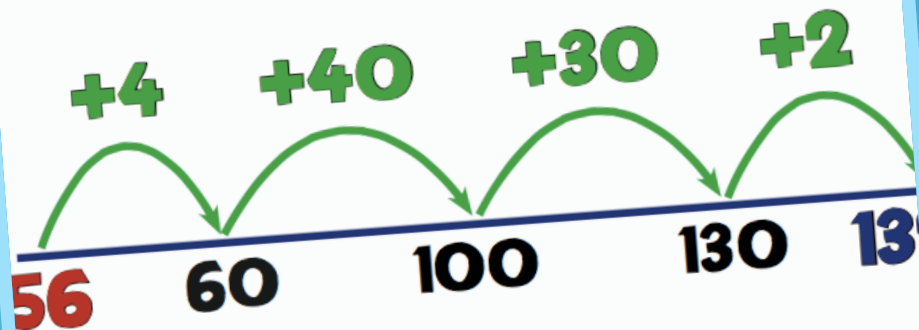
$$132 - 56 = 76$$

S8d: Quad Jump Extreme



$$5042 - 1776 = 3266$$

S8b: Quad Jump!



$$132 - 56 = 76$$

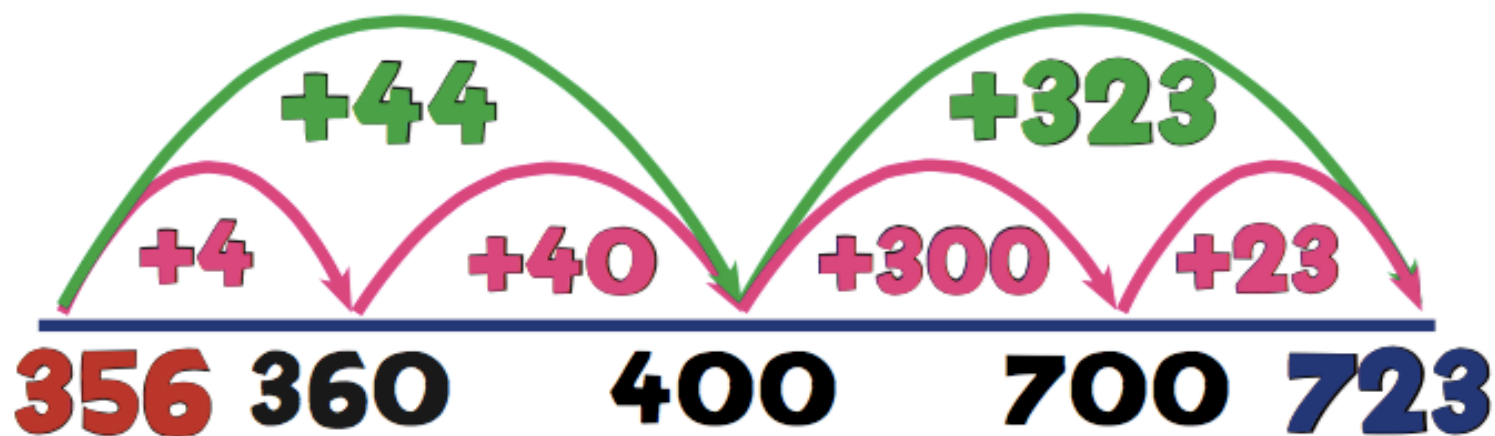
$$153 - 74$$



Method 2: Big Jump

S8c: Big Jump!

3



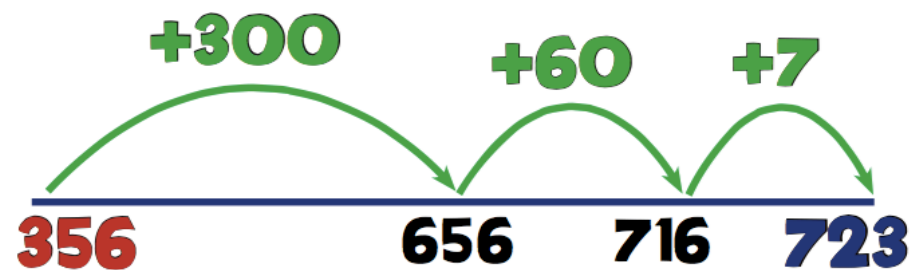
$$723 - 356 = 367$$

$$631 - 463$$



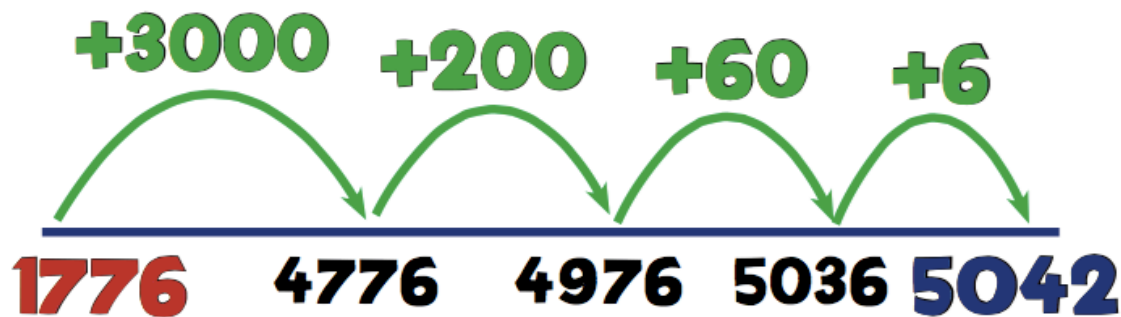
Method 3: 1000's, 100's,
10's & 1's Jump

S9c: 100s, 10s, 1s Jump



$$723 - 356 = 367$$

S9d: 1000s, 100s, 10s, 1s Jump



$$5042 - 1776 = 3266$$

Step 9d: 1000s, 100s, 10s, 1s

+3000 +200 +60 +6



1776 4776 4976 5036 5042

5042 - 1776 = 3266

4037 - 1863



Method 4: Expanded Column

S10: Expanded Column

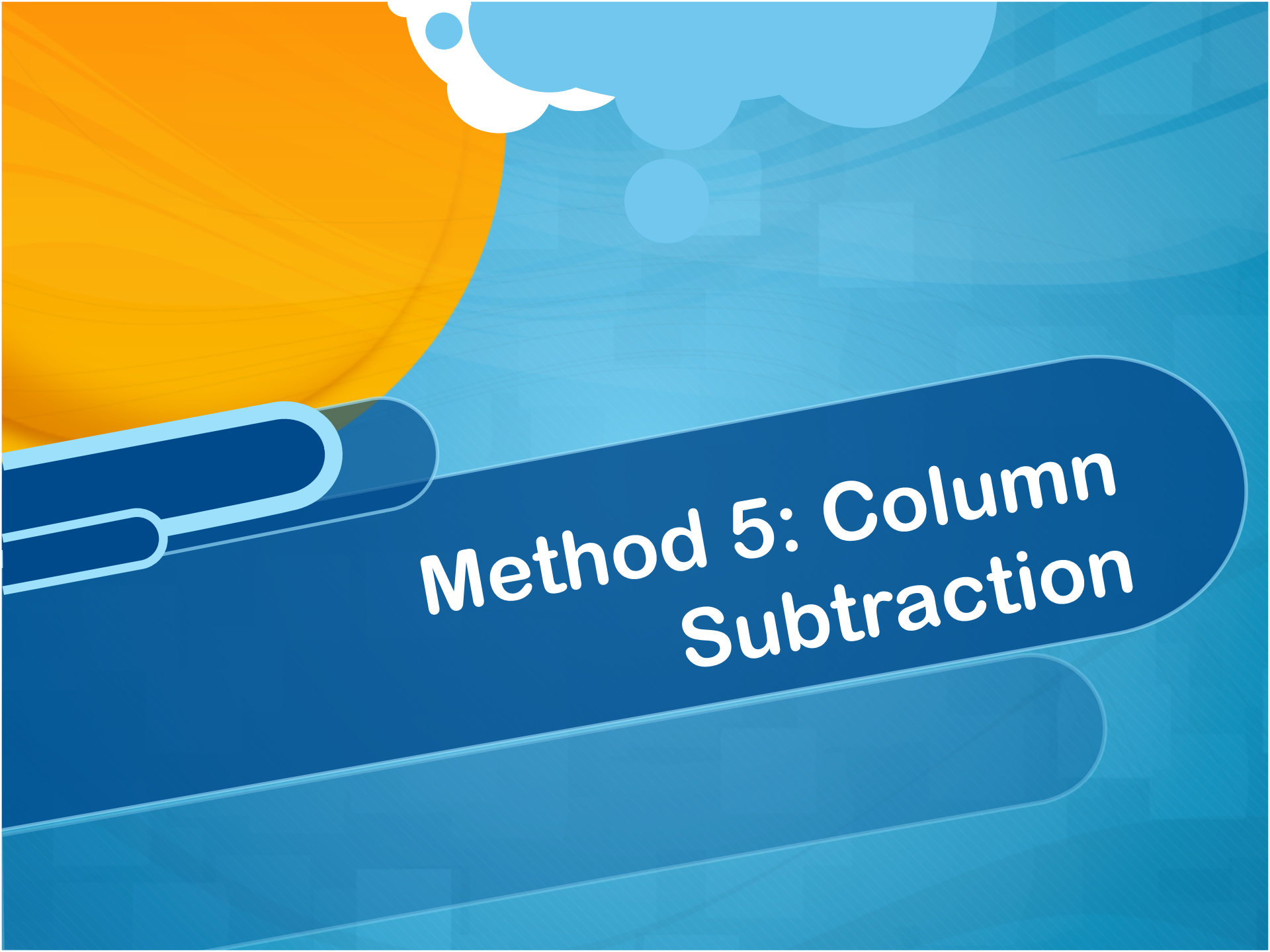
3

Subtraction (100, 10, 1s)

$$723 - 356 = 367$$

600	110	1
700	20	3
- 300	50	6
<hr/>		
300	60	7

$$437 - 246$$



Method 5: Column Subtraction

S11: Column Subtraction

3

$$\begin{array}{r} \begin{array}{ccc} 100 & 10 & 1 \\ 6 & 11 & 1 \end{array} \\ \begin{array}{r} \cancel{7} \cancel{2} 3 \\ - 356 \\ \hline 367 \end{array} \end{array}$$

S11d: Column Subtraction

4

$$\begin{array}{r} \begin{array}{cccc} 4 & 19 & 13 & 1 \end{array} \\ \begin{array}{r} \cancel{5} \cancel{0} \cancel{4} 2 \\ - 1776 \\ \hline 3266 \end{array} \end{array}$$

511d: Column Subtraction

$$\begin{array}{r} \overset{4}{\cancel{5}} \overset{1}{\cancel{0}} \overset{9}{\cancel{4}} \overset{13}{\cancel{2}} \\ - 1776 \\ \hline 3266 \end{array}$$

$$5694 - 2723$$



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you can use at home!**



Problem Solving & RUCSAC



Developing greater depth in Maths

Reasoning



Making an estimate

Which of these number sentences
have the answer that is between
550 and 600?

$$1174 - 611$$

$$3330 - 2779$$

$$9326 - 8777$$

Convince Me

$$\boxed{} - 666 = 8 \boxed{} 5$$

What is the largest possible number that will go in the rectangular box?
What is the smallest?

Convince me!



More methods for mental subtraction

MS1: Counting Back

$$46 - 21 = 25$$



MS2: Counting On

$$75 - 47 = 28$$



Counting On

$$75 - 47 = 28$$



MS3: Round & Adjust

$$84 - 29 = 55$$

$$84 - 30 + 1$$


$$54 + 1 = 55$$