

The background features a bright yellow sun in the top right corner, partially obscured by a blue cloud. Several other blue clouds of varying sizes are scattered across the top left. A large, light blue pencil is positioned diagonally across the middle of the image, pointing towards the bottom right. The overall color scheme is dominated by shades of blue and yellow.

# Years 5 & 6 Maths Workshop

Addition and Subtraction



# Expectations in Addition & Subtraction

## Year 5 vs. Year 6

- I can add and subtract numbers with more than four digits using written formal methods.
- I can add and subtract 2 and 3 digit numbers in my head.
- I can use rounding to check answers to calculations and determine levels of accuracy.
- I can solve addition and subtraction problems needing more than one step and work out which operation and method is the most suitable.
- I can mentally calculate using a mix of the four operations
- I can solve problems with more than one step and operation and explain why I used them.
- I can solve addition and subtraction word and practical problems.
- I can use estimation to check answers to calculations and determine an appropriate degree of accuracy.

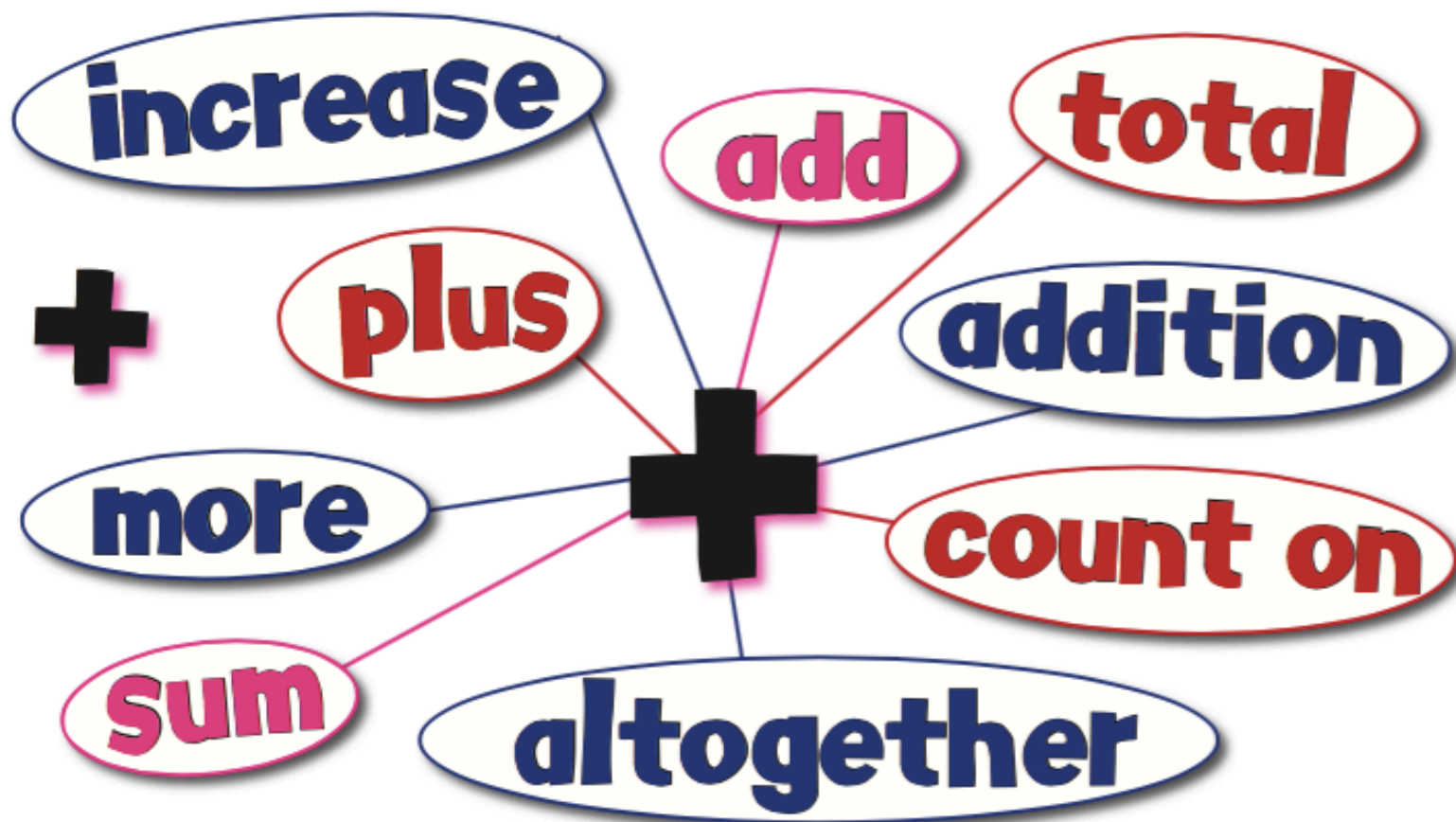


# Number & Place Value links

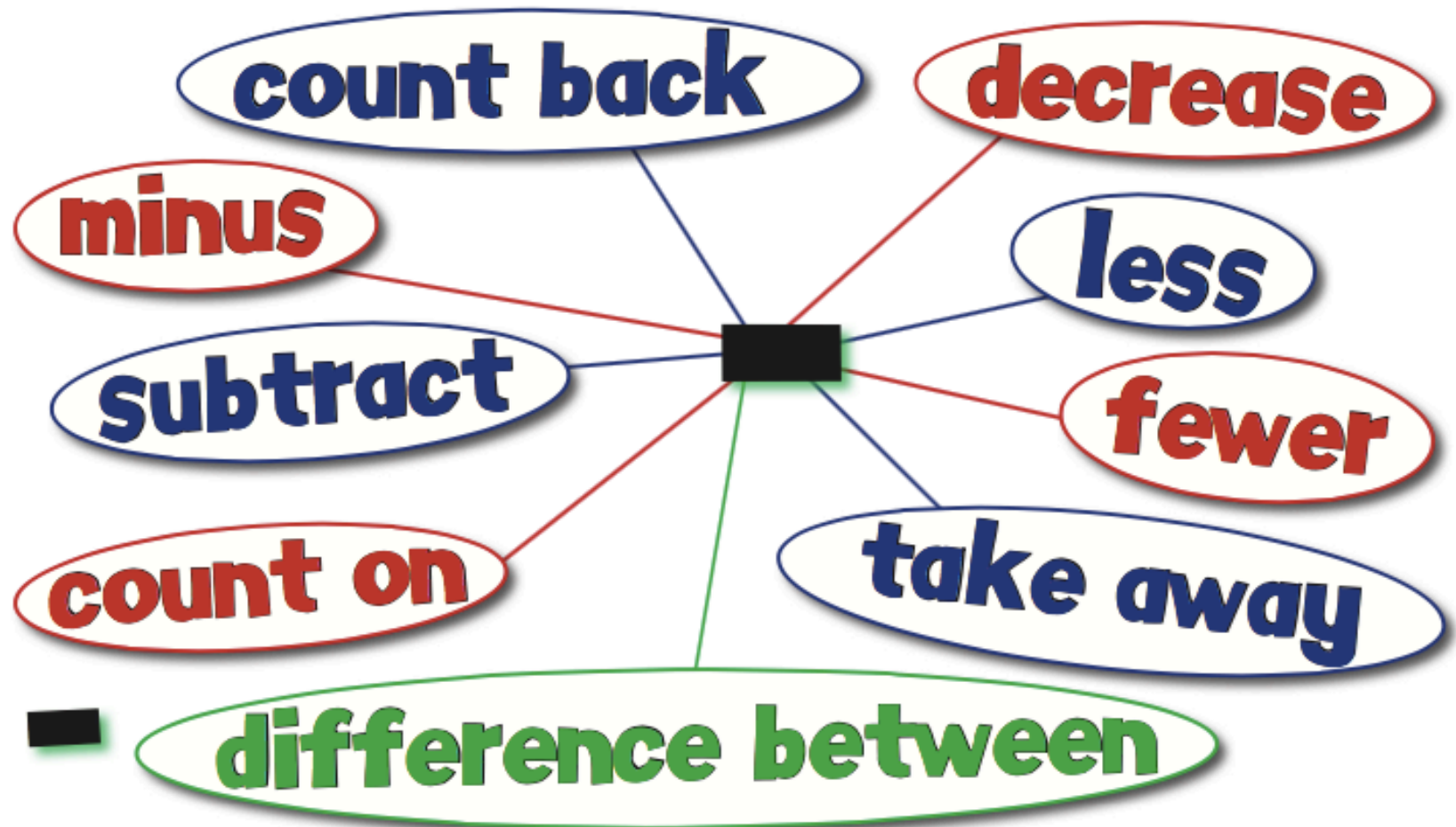
## Year 5 vs. Year 6

- I can read, write, order and compare numbers to at least 1,000,000 (one million) and say the value of each digit
  - I can keep multiplying a number by 10 or 100 up to 1,000,000 and count back
  - I can use negative numbers in context when looking at temperature or money; counting forwards and backwards through 0
  - I can round numbers up to 1,000,000 to the nearest 10, 100, 1000, 10,000 or 100,000
  - I can solve number and practical problems that involve ordering and comparing numbers to 1 000 000, counting forwards or backwards in steps, negative numbers and rounding
  - I can read Roman numerals to 1000 and recognise years written in these
- I can read, write, order and compare numbers to at least 10,000,000 (ten million) and say the value of each digit
  - I can round any number to a required degree of accuracy
  - I can use negative numbers in context when looking at temperature or money; counting in jumps forwards and backwards through 0
  - I can solve number and practical problems that involve ordering and comparing numbers to 10 000 000, rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero

# Addition Vocabulary



# Subtraction Vocabulary



# The School Run Glossary



**Support your child's learning journey**



# Method 1: Partition Jottings

Addition

## A5f: Partition Jot

5

$$4.8 + 3.8 = 8.6$$

A diagram showing the partitioning of the addition 4.8 + 3.8. Colored lines connect the digits of the top equation to the digits of the bottom equation: a green line from 4 to 7, a purple line from 8 to 1, a green line from 3 to 7, and a purple line from 8 to 6. This illustrates that 4 + 3 = 7 and 0.8 + 0.8 = 1.6.

$$7 + 1.6$$

## A5g: Partition Jot

5

$$5.65 + 3.29 = 8.94$$

A diagram showing the partitioning of the addition 5.65 + 3.29. Colored lines connect the digits of the top equation to the digits of the bottom equation: a green line from 5 to 8, a purple line from 6 to 0, a yellow line from 5 to 0, a green line from 3 to 8, a purple line from 2 to 0, and a yellow line from 9 to 14. This illustrates that 5 + 3 = 8, 0.6 + 0.2 = 0.8, and 0.05 + 0.09 = 0.14.

$$8 + 0.8 + 0.14$$

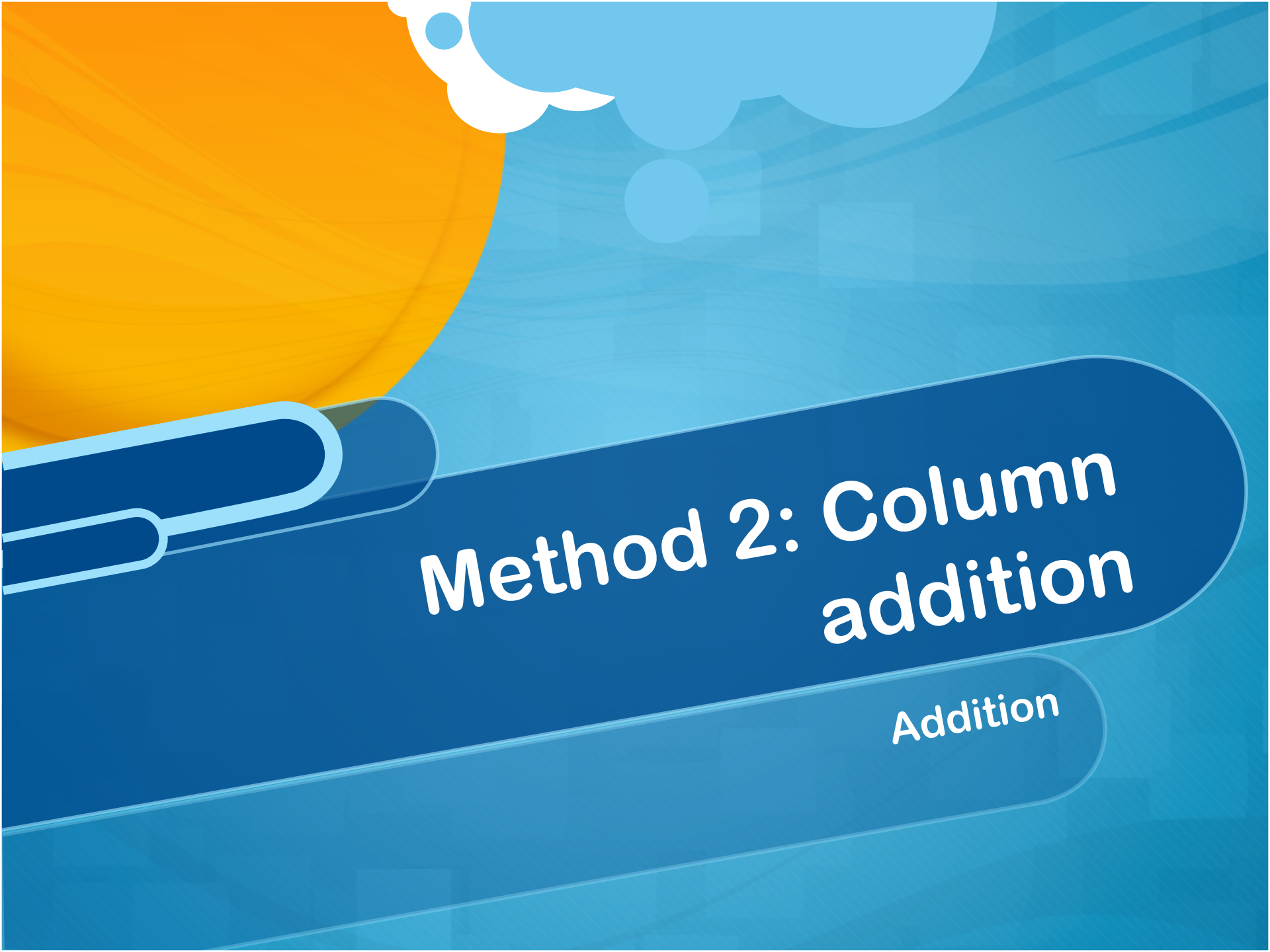
## A5i: Partition Jot

5

$$\pounds 38.\underline{25} + \pounds \underline{27}.\underline{46} = \pounds 65.71$$

$$\pounds 65.00 + \pounds 0.71$$

$$\pounds 42.56 + \pounds 13.42$$



# Method 2: Column addition

Addition

# A7e: Column Addition

5

$$\begin{array}{r} 787567 \\ + 446278 \\ \hline 1233845 \\ \hline \begin{array}{cccccc} 1 & 1 & 1 & & 1 & 1 \end{array} \end{array}$$

# A7g: Column Addition

$$\begin{array}{r}
 \begin{array}{c} 1 \quad \cdot \quad \frac{1}{10} \quad \frac{1}{100} \\ 5.65 \\ + 3.29 \\ \hline 8.94 \end{array} \\
 1
 \end{array}$$

# A7j: Column Addition

With Decimals

$$73.4 + 5.67 = 79.07$$

$$\begin{array}{r}
 \begin{array}{c} 10 \quad 1 \quad \cdot \quad \frac{1}{10} \quad \frac{1}{100} \\ 73.4 \\ + 5.67 \\ \hline 79.07 \end{array} \\
 1
 \end{array}$$

## A7i: Column Addition

With Money

5

$$\begin{array}{r} \text{£}38.25 \\ + \text{£}27.46 \\ \hline \text{£}65.71 \\ \hline \end{array}$$

1 1

$$\text{£}21.49 + \text{£}56.21$$



# Method 3: Counting On

Addition

# MA2a: Counting On

5

Hundreds

$$837 + 500 = 1337$$

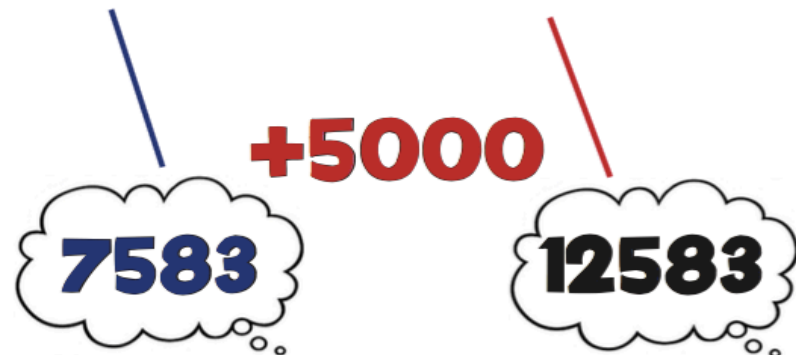


# MA2b: Counting On

5

Thousands

$$7583 + 5000 = 12583$$



# MA2a: Counting On

6

Ten Thousands

$$43,826 + 30,000 = 73,826$$

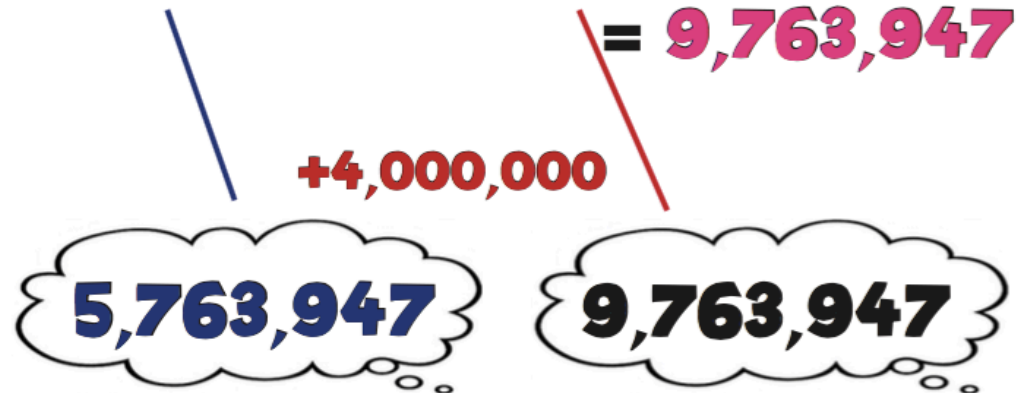


# MA2b: Counting On

6

Millions

$$5,763,947 + 4,000,000 = 9,763,947$$





# Method 4: Round and Adjust

Addition

## MA5: Round & Adjust

5

$$4645 + 1996 = 6641$$

$$4645 + 2000 - 4$$

$$6645 - 4 = 6641$$

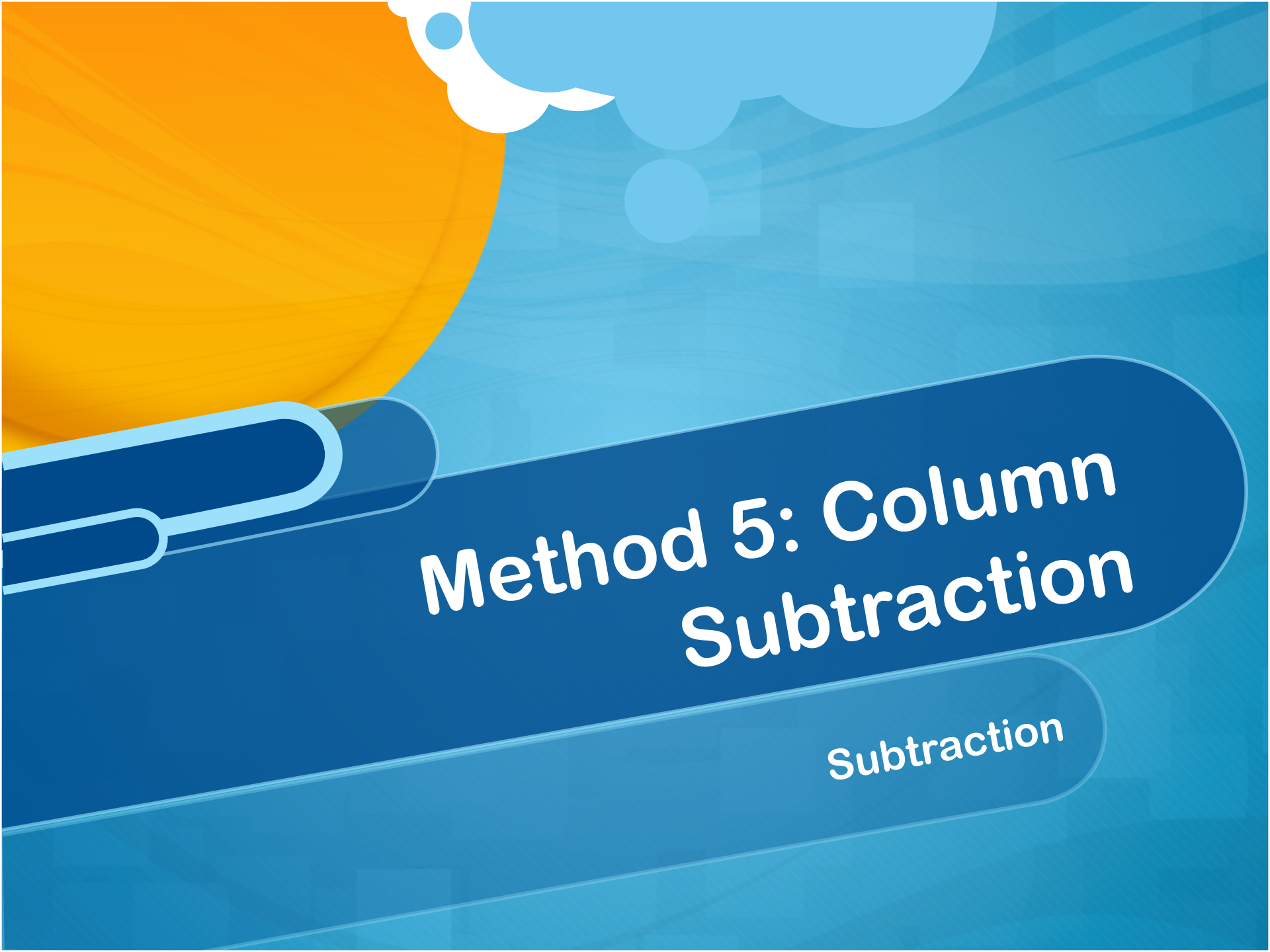
## MA5: Round & Adjust

6

$$45.2 + 49.9 = 95.1$$

$$45.2 + 50 - 0.1$$

$$95.2 - 0.1 = 95.1$$



# Method 5: Column Subtraction

Subtraction

# S11: Column Subtraction

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

Year 3  
expectations

# S11d: Column Subtraction

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

Year 4  
expectations

# S11e: Column Subtraction

5

$$\begin{array}{r} \overset{3}{7} \overset{1}{\cancel{4}} \overset{7}{2} \overset{12}{\cancel{8}} \overset{1}{\cancel{3}} 1 \\ - 427358 \\ \hline 315473 \end{array}$$

$$945,271 - 529,186 =$$

# S11f: Column Subtraction

5

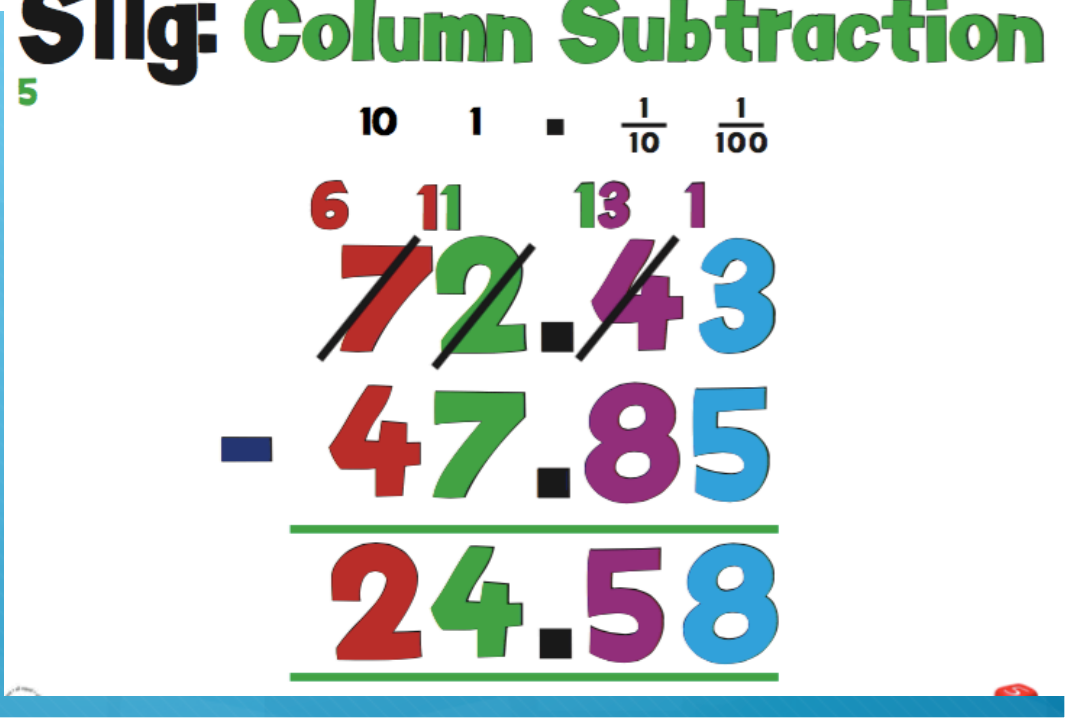
$$\begin{array}{r}
 \begin{array}{c} 10 \quad 1 \quad \square \quad \frac{1}{10} \\ 0 \quad 12 \quad 1 \\ \textcolor{red}{1} \textcolor{green}{3} \textcolor{purple}{4} \\ - \textcolor{blue}{8} \textcolor{green}{7} \\ \hline \textcolor{green}{4} \textcolor{purple}{7} \end{array}
 \end{array}$$



# S11g: Column Subtraction

5

$$\begin{array}{r}
 \begin{array}{c} 10 \quad 1 \quad \square \quad \frac{1}{10} \quad \frac{1}{100} \\ 6 \quad 11 \quad 13 \quad 1 \\ \textcolor{red}{7} \textcolor{green}{2} \textcolor{purple}{4} \textcolor{blue}{3} \\ - \textcolor{blue}{4} \textcolor{red}{7} \textcolor{green}{8} \textcolor{purple}{5} \\ \hline \textcolor{red}{2} \textcolor{green}{4} \textcolor{purple}{5} \textcolor{blue}{8} \end{array}
 \end{array}$$



# S11g: Column Subtraction

5

10   1   ■    $\frac{1}{10}$     $\frac{1}{100}$

$$\begin{array}{r} \overset{6}{\cancel{7}} \overset{11}{\cancel{2}} \overset{13}{\cancel{4}} \overset{1}{3} \\ - 47.85 \\ \hline 24.58 \end{array}$$

$$£56.21 - £21.49 =$$



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# Problem Solving & RUCSAC

## Problem 1

There are 38 people on the bus.  
At Stop A, half of the people get off  
and 5 get on. At Stop B, a third of  
the people get off and 3 get on.

How many people are now on the bus?

twinkl

## Problem 6

Krishna buys a skateboard for £13.36. He pays with a £20 note.

How much change does he receive?

## Problem 12

What is the total of:

£9.87

£16.22

£5.12 ?



# Developing greater depth in Maths

Reasoning

# Which Operations

- On Sunday, Jacob spent 86 minutes on his Maths homework and 37 minutes reading. On Tuesday, he spent 69 minutes on his project?
- What calculations will you use to find the difference between the time spent on homework on Sunday and Tuesday?

$86 + 37 = 123$  minutes  
on Sunday

$123 - 69 = 54$  minutes  
difference

- Write a different word problem that uses the same calculation to find the answer.

Hide  
Answers

# Check the Answer

- Alisha has £18.35 in her purse. Her father gives her £5 pocket money. She buys a book for £7.99 and a bag for £13.49. How much will she have left?

Alisha is correct:  $£18.35 + £5 - £7.99 - £13.49$   
Jack is incorrect:  $£7.99 + £13.49 - £18.35$ . He has missed out the £5 pocket money and subtracted the money in the purse from the amount spent.

- Naomi says Alisha has £1.87 left.
- Jack says Alisha has £3.13 left.
- Who is correct and what mistakes have been made?
- What other errors might be made?

Hide  
Answers