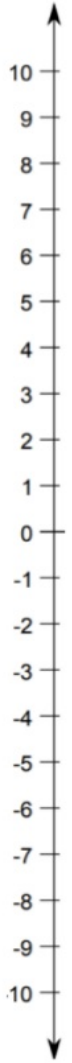
Billion (1,000,000,000)	Hundred Million (100,000,000)	Ten Million (10,000,000)	Million (1,000,000)	Hundred Thousand (100,000)	Ten Thousand (10,000)	Thousand (1,000)	Hundred (100)	Ten (10)	Units (1)	Tenths (0.1)	Hundredths (0.01)	Thousandths (0.001)



Place Value

First comma	Thousands	1, 206, 000
Second comma	Millions	1,206,000 — 1 million two hundred and six thousand
Ascending	Smallest to biggest	Write in descending order: 4.403. 4.3. 4.33. 4.03
Descending	Biggest to smallest	U T H TH: 4.4 0 3 / 4.3 3 0 ← add place holders / 4.3 0 0 / 4.0 3 0 — Line up the decimal point
The decimal point	Never moves	
Crocodile	Eats the bigger number	-2 > -7

Addition and Subtraction

Product	Times	8 × 3
Sum	Add	8 + 3
Difference	Subtract	8 − 3
Integer	Whole number	Circle the integers below: -5·2, ¼, -3, 1·7, 56
Odd ends in	1, 3, 5, 7, 9	Write the largest even number using: 2, 3 and 7 — largest; 732 — must end with even
Even ends in	2, 4, 6, 8, or 0	

Multiplication and Division

Multiplying	Column mutliplication	98 × 54: 392 (← This is 98 x 4); 4900 (← This is 98 x 50); 5292 (← This is 98 x 54)
Dividing numbers	Bus stop	Work out 3 ÷ 8 = 8⟌3.000 = 0.375
First number	Goes in the bus stop	
Dividing by a decimal	Equivalent fractions, Turn the denominator into an integer	Calculate 0.0642 ÷ 0.03: 0.0642/0.03 = /3 = new sum but easy

Order of Operations

B	Brackets	10 − (5 − 2) + √81
I	Indices	10 − 3 + √81
DM	Division, Multiplication	10 − 3 + 9
AS	Addition, Subtraction	same level of importance, read from left to right
One step at a time	Copy the rest down	7 + 9 =

Rounding and estimation

Rounding	Find the decider	Round 58,624 to the nearest 100
5 or above	Give it a shove	58,624 — decider
4 or below	Let it go	

Y7 Maths

Knowledge Organiser

Term 1

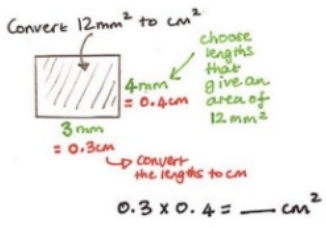
Basic rule of Algebra

Collecting like terms		$2a + 3b - 4c$
The term includes	The sign before	positive / negative

Expressions and Substitution

Substitution	Replace with brackets	a = 5 and b = -3. Calculate 6a - 3b $6(5) - 3(-2)$ $= 30 + 6$ $= 36$

Units of measurement

Converting units	Box method Bigger unit equals '1'	Convert 0.03m into cm  Answer: 3cm 1cm = 10mm 1m = 100cm 1km = 1000m 1kg = 1000g 1l = 1000ml 1 min = 60 seconds 1 hour = 60 mins
Converting units of area	Draw a rectangle Convert the lengths	 	

Solving Linear Equations

Successful elimination	With an inverse operation	Solve $10x = 5$ $\div 10 \quad \div 10$
Do it to 1 side	Do it to the other to keep the balance	 $3 + 2x = 5$ $-3 \quad -3$ $2x = 2$ $\div 2 \quad \div 2$ $x = 1$
x on both sides	Get rid of the smallest 'x'	Solve $11 - 3x = 2x + 1$ $+3x \quad +3x$
x on both sides and brackets	Expand the brackets first	Solve $3(x + 4) = 5(2x - 1)$ $3x + 12 = 10x - 5$

Y7 Maths

Knowledge Organiser

Term 1