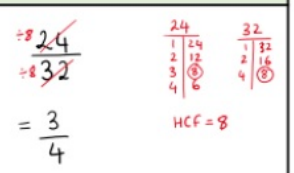
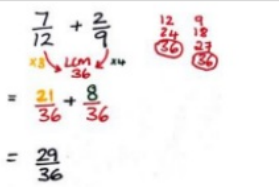
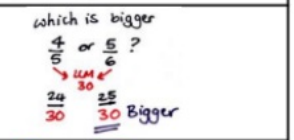
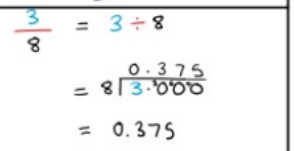
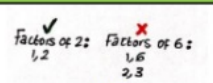
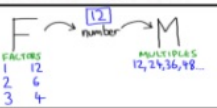
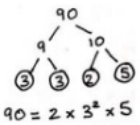
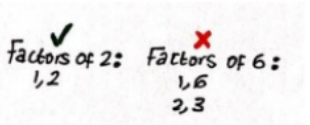
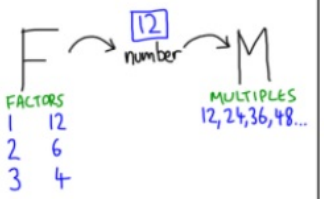
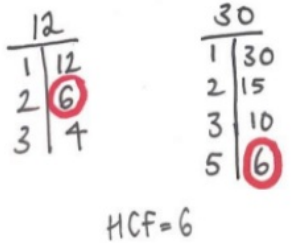
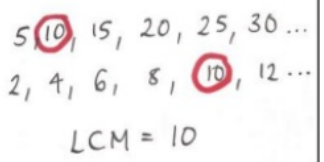
Fractions

Equivalent fractions	Multiply top and bottom by the same thing	
Simplifying fractions	Find the HCF	
Adding and subtracting fractions	Find the LCM	
Comparing fractions	Find the LCM	
The fraction line means	Divide	
The numerator	Goes in the bus stop	

Prime Factorisation

Prime numbers	Have exactly two factors	
Factors of a number	Go into a number	
Multiples of a number	Are the times tables	
Prime factor form	Tree thing tree thing	Express 90 as a product of prime factors:  $90 = 2 \times 3^2 \times 5$
Product of its primes	Product means times, 2,3,5,7 don't forget your primes	

Factors, Multiples, Primes

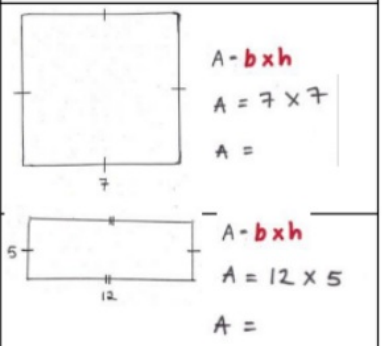
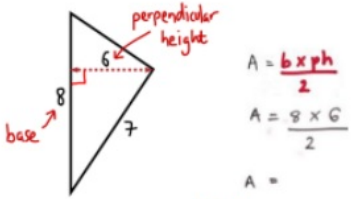
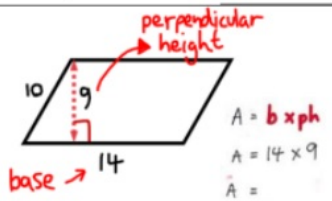
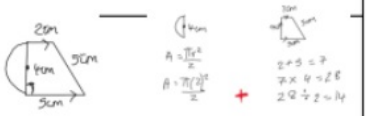
Prime numbers	Have exactly two factors	
Factors of a number	Go into a number	
Multiples of a number	Are the times tables	
Highest common factor	List the factors, circle the highest in both	What is the HCF of 12 and 30? 
Lowest common multiple	List the times tables, circle the lowest in both	What is the LCM of 2 and 5? 

Y7 Maths

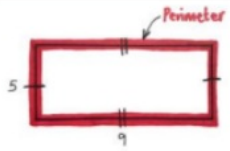
Knowledge Organiser

Term 2

Area

Area is	The space inside a 2D shape	
Area of a rectangle	Length x width OR Base x height	
Area of a triangle	Base x Perpendicular Height 2	
Area of a parallelogram	Base x Perpendicular Height	
Compound area	Split into separate shapes and add	

Perimeter

Perimeter is	The distance around a 2D shape	

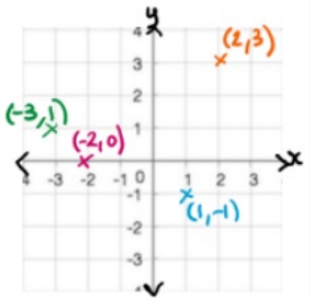
Y7 Maths

Knowledge Organiser

Term 2

Coordinates

X axis	Horizontal →
Y axis	Vertical ↑
Coordinates	X then y (x, y)
Start at the...	Origin (0, 0)
Go along the...	X axis − ⟷ +
Then go up or down the..	Y axis + ↕ −



Polygons

Triangle	3 Sides	
Square	4 sides	
Pentagon	5 sides	
Hexagon	6 sides	
Heptagon	7 sides	
Octagon	8 sides	
Nonagon	9 sides	
Decagon	10 sides	

Expanding and Factorising

Expanding Brackets	Multiply the outside by every term inside	$2(x+5)$ → $2x + 10$
Factorising What do we look for?	Put in brackets Common factors	Factorise $6xy^2 - 9x^2y - 12xy$ → $3xy(2y - 3x - 4)$

Lines of symmetry in regular polygons

Regular polygon, lines of symmetry	Same as the number of sides	
Square	4 lines of symmetry	
Equilateral Triangle	3 lines of symmetry	
Regular Pentagon	5 lines of symmetry	
Regular Hexagon	6 lines of symmetry	

Y7 Maths

Knowledge Organiser

Term 2