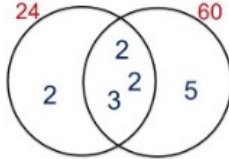
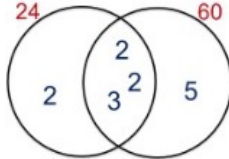


MATHEMATICS - YEAR 9 FOUNDATION - BLOCK 1

A NUMBER		
1	Order of operations	Brackets Indices Division and multiplication Addition and subtraction
2	The inverse of x^2	\sqrt{x}
3	The inverse of x^3	$\sqrt[3]{x}$
4	The first significant figure	The first non-zero digit in a number
5	To estimate a calculation...	Round each number to 1 significant figure
6	Prime number	A number with exactly two factors
7	First 10 prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29
8	To write a number as the product of its prime factors	Use a prime factor tree
9	Find the Highest Common Factor (HCF) from a Venn Diagram	Multiply all the terms in the centre of the Venn Diagram together, e.g:  HCF: $2 \times 2 \times 3 = 12$
10	Find the Lowest Common Multiple (LCM) from a Venn Diagram	Multiply all of the terms in the Venn Diagram together, e.g:  LCM: $2 \times (2 \times 2 \times 3 \times 5) = 120$

11	When multiplying two powers with the same base $a^x \times a^y$	Add the powers a^{x+y}
12	When dividing two powers with the same base $\frac{a^x}{a^y}$	Subtract the powers a^{x-y}
13	When raising a power to a power $(a^x)^y$	Multiply the powers a^{xy}
14	a^0	1
15	When raising to a negative power $\left(\frac{a}{b}\right)^{-x}$	Find the reciprocal and change to a positive power $\left(\frac{b}{a}\right)^x$

B ALGEBRA		
1	3 more than x	$x + 3$
2	3 less than x	$x - 3$
3	3 times bigger than x	$3x$
4	Expanding brackets	Multiply each term on the inside of the bracket by the term outside $a(x + b) \equiv ax + ab$
5	Factorising brackets	The inverse of expanding brackets