

Year 8 Strand 1

Topic/Skill	Definition/Tips	Example
Find factors	The factors of a number are numbers that multiply to give that number	$6 = 1 \times 6$ and 2×3 . This means that 1, 6, 2 and 3 are factors of 6
Find multiples	A multiple of a number is that number multiplied by a whole number	Multiples of 3 are 3, 6, 9, 12, ...
Indices	Indices are used as shorthand notation to tell you how many times to multiply a number	$2^5 = 2 \times 2 \times 2 \times 2 \times 2$. 5 is the index number here indicating that 2 must be multiplied by itself 5 times
Fraction	A fraction represents part of a whole. It is also another way to write a division of one number by another	$2/3$ means 2 divided by 3
Product	When you multiply numbers you are finding the product of those numbers	e.g. the product of 2 and 10 is 20 because $2 \times 10 = 20$
reciprocal	A reciprocal of a number when multiplied by that number will give a product of 1	e.g. the reciprocal of $2/3$ is $3/2$ because $2/3 \times 3/2 = 1$
Find the square of a number	This is a number raised to the power 2 (it has an index number 2)	The square of 5 is $5^2 = 5 \times 5 = 25$
Find the square root of a number	To find the square root of a number you find a number that squares to give that number	$\sqrt{25} = 5$ because $5^2 = 25$. You can also use the $\sqrt{\quad}$ button on your calculator to calculate this
Find lowest common multiple (LCM)	To find multiples of 2 or more numbers then finding which number occurs in both lists that is the smallest	Find the LCM of 6 and 10 6 12 18 24 30 10 20 30 -- 30 is the LCM as this is in both lists
Find highest common factor (HCF)	To find all factors for 2 or more numbers and find the highest factor that is common to all lists	Find the HCF of 12 and 18 12: 1, 2, 3, 4, 6, 12 18: 1, 2, 3, 6, 9, 18 6 is the HCF
Unit fractions	Unit fractions have a denominator = 1	e.g. $1/2$ $1/3$ $1/10$
Mixed number	A mixed number is a whole number with a fraction added to it	e.g. $2\frac{1}{2}$
Improper fraction	Is a fraction with a numerator larger than its denominator	e.g. $19/12$
Recurring decimals	a decimal fraction in which a figure or group of figures is repeated indefinitely,	0.333333333333... 0.373737373737... 0.1923219232....
Convert from mixed number to improper fraction	Change a mixed number to an improper fraction that has equivalent value	Change $3\frac{1}{2}$ to an improper fraction Change the 3 into halves and add the other half. 3 is 6 halves add another half is 7 halves $7\frac{1}{2}$
Convert from improper fraction to a mixed number	Change an improper fraction into a mixed number that has an equivalent value	Change $7/2$ into a mixed number. You have 7 halves. This will make 3 whole and there will be a half left. $3\frac{1}{2}$