

Unit 6 - ratio

No.	Question	Answer	Example
6.1	How do you represent a ratio?	1. Count how many of each part you're given 2. Write it as a ratio in the order specified.	Represent the following as a ratio Black : White 5 : 3
6.2	How do you represent a ratio as a fraction?	1. Add the total number of parts together 2. Each part of the ratio represents the numerator	2:3 as a fraction $2 + 3 = 5$ $\frac{2}{5}$ and $\frac{3}{5}$
6.3	How do you divide a quantity into a ratio?	1. Divide the quantity by the total number of parts 2. Multiply by the number of parts in each share of the ratio	20 shared into the ratio 2:3 $2 + 3 = 5$ $20 \div 5 = 4$ (1 share) $4 \times 2 = 8$ $4 \times 3 = 12$
6.4	Speed = ...	Speed = $\frac{\text{distance}}{\text{time}}$	Distance = 70m, time = 2 hours $S = \frac{70}{2}$ $S = 35m/h$

Date (week commencing)	Numbers to learn
4 th Jan	6.1-8.3
10 th Jan	6.1-8.3 & 4.2-4.6
17 th Jan	6.1-8.3 & 4.2-4.6
24 th Jan	6.1-8.3 & 5.1-5.6
31 st Jan	6.1-8.3 & 5.1-5.6
7 th Feb	6.1-8.3 & 5.7-5.15
14 th Feb	6.1-8.3 & 5.7-5.15

Learning means...

I am using look >> cover >> write >> check at least twice for this week's facts and/or

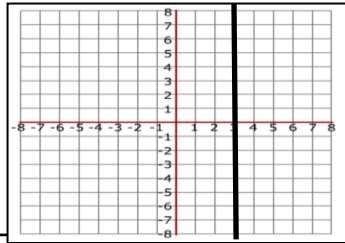
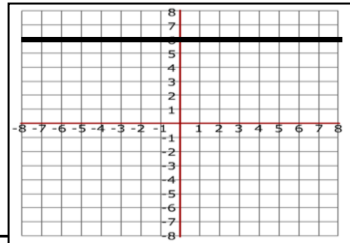
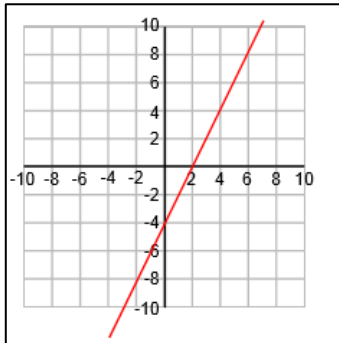
I made flash cards ("Question" on one side and "Answer" on the other) for the facts and got someone to test me on them at least twice and/or

I used Quizlet to practise the fact for 5 minutes everyday.

so that...

I achieve the minimum score of 8/10 on the quiz

Unit 7 – linear graphs and rate

No.	Question	Answer	Example
7.1	Vertical lines are always	$x = n$ where all the x coordinates are the same	 $x = 3$
7.2	Horizontal lines are always	$y = n$ where all the y coordinates are the same	 $y = 6$
7.3	Plot $Y = 2x - 4$	Choose appropriate X coordinates, multiply by 2 and subtract 4 to find y coordinates. Then plot and join with a line.	

x	-2	0	2	4	6
y	-8	-4	0	4	8

Unit 8- direct and inverse proportion

No.	Question	Answer	Example
8.1	Direct proportion	As one variable increases, the other variable increases	If you work 2 hours you get paid £40 If you work 3 hours you get paid £60
8.2	Indirect proportion	As one variable increases, the other variable decreases	As speed goes up, travel time goes down And as speed goes down, travel time goes up
8.3	The unitary method	Find one first	

Unit 4 – negative numbers		
No.	Question	Answer
4.1	Positive Number	Any number greater than zero
4.2	Negative Number	Any number smaller than zero
4.3	Positive X Positive =	Positive
4.4	Positive X Negative =	Negative
4.5	Negative X Positive =	Negative
4.6	Negative X Negative =	Positive

Learning means...

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and/or

I made flash cards ("Question" on one side and "Answer" on the other) for the facts and got someone to test me on them at least twice

and/or

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so that...

I achieve the minimum score of 8/10 on the quiz

REMEMBER: I don't need to learn the clarifications and examples (in brackets)!

Unit 5 - equations		
No.	Question	Answer
5.1	Variable	A symbol (usually a letter) used to represent an unknown value e.g. x
5.2	Term (algebra)	Each part of an expression separated by a + or – (e.g. in $x^2 - 2x + 4$, x^2 , 4 and $-2x$ are the terms)
5.3	Constant	A term that does not contain a variable
5.4	Expression	A value written using at least one variable (e.g. $3b$ or $5t - 9s$)
5.5	Equation	An expression shown to be equal to another value (e.g. $3b = 50$ or $5t - 9s = 10t - 9s - 7$)
5.6	Coefficient	The number in front of the variable (e.g. for $2x$, 2 is the coefficient of x)
5.7	Substitute	Replace the variable with something else
5.8	Solve	Calculate the value of the variable
5.9	Like Terms	Terms that have the same letter and same index (e.g. $2x^2$ and $5x^2$)
5.10	Collect Like Terms	Write all like terms as a single term by adding or subtracting them together
5.11	Simplify	Rewrite the expression in an easier to remember form.
5.12	nth Term	An algebraic expression giving the rule to find the value of any given term in the sequence
5.13	Term (sequence	Any value in the sequence
5.14	Consecutive	Values in order with no gaps (e.g. 5 and 6 are consecutive integers)
5.15	What is a linear sequence?	A sequence that increases or decreases by the same amount between terms

Unit 1 - primes

No.	Question	Answer
1.1	Prime number	An integer that has exactly two factors; one and itself
1.2	Square number	The result of multiplying an integer by itself
1.3	Square root	The inverse of squaring e.g. the square root of 64 is 8
1.4	Integer	A whole number
1.5	Multiple	A number in the times table
1.6	Factor	A number that divides into another number without any remainder
1.7	HCF (Highest Common Factor)	The largest integer that is a factor of all of the values.
1.8	LCM (Lowest Common Multiple)	The smallest integer that is a multiple of all of the values
1.9	Index	The amount of copies of the base value that need to be multiplied together.
1.10	Power	The index
1.11	Squared	A number to the power of 2
1.12	Cubed	A number to the power of 3
1.13	Prime Factors	The factors of a number that are also prime numbers
1.14	Prime Factor Decomposition	Breaking down a number into the product of its prime factors using a prime factor tree
1.15	Product	The result of a multiplication

Unit 2 - fractions

No.	Question	Answer
2.1	Improper Fraction	A fraction where the numerator is greater than the denominator
2.2	Mixed Number	An improper fraction written as an integer part and a proper fraction.
2.3	Unit Fraction	A fraction with a numerator of one
2.4	How do you multiply fractions?	Multiply the numerators and multiply the denominators
2.5	How do you divide fractions?	Keep Change Flip
2.6	How do you add fractions?	Convert to a common denominator, then add the numerators
2.7	How do you subtract fractions?	Convert to a common denominator, then subtract the numerators
2.8	How do you find a fraction of an amount?	Divide the amount by the denominator and multiply by the numerator
2.9	To find... $\frac{1}{2}$ of	Divide by 2
2.10	To find... $\frac{1}{3}$ of	Divide by 3
2.11	To find... $\frac{1}{4}$ of	Divide by 4
2.12	To find... $\frac{1}{5}$ of	Divide by 5
2.13	To find... $\frac{1}{6}$ of	Divide by 6
2.14	To find... $\frac{1}{7}$ of	Divide by 7
2.15	To find... $\frac{1}{8}$ of	Divide by 8
2.16	To find... $\frac{1}{9}$ of	Divide by 9
2.17	To find... $\frac{1}{10}$ of	Divide by 10