KYRIPTONITE CHALLENGE BOOK

NAME:.....

CLASS:.....

Recognising percentage, fraction, decimal equivalents

Percentage	Fraction	Decimal
50%		
10%		
30%		
70%		
80%		
20%		
90%		
40%		
60%		
25%		
75%		
1%		
3%		
7%		

Learn number bonds to 1 using hundredths:

e.g., 0.17+0.83, 0.34+0.66, 0.29+0.71

I will be giving you a hundredth number and you will have to tell me what you need to add to it to make 1.

Write these numbers in roman numerals

1		30	
2		40	
3		50	
4		60	
5		70	
6		80	
7		90	
8		100	
9		500	
10		1000	
20		I will be testing this by asking you to write a number in roman numerals.	
30			
40			

Learn how to convert between commonly used imperial and metric measurements.

1 km = 5 /8 mile 1 m = 39.37 inches

1 foot = 30.5 cm 1 inch = 2.54 cm 1 kg = 2.2 lb 1 gallon = 4.5 litres 1 litre = 1. 75 pints

Learn the 13 times table in order and out of order

1x13=		3x13=	**Practise 1:**
2x13=	**Practise 1:**	5x13=	
3x13=		8x13=	
4x13=		9x13=	**Practise 2:**
5x13=	**Practise 2:**	11x13=	
6x13=		2x13=	
7x13=		6x13=	
8x13=		12x13=	**Checked:**
9x13=	**Checked:**	1x13=	
10x13=		10x13=	
11x13=		7x13=	
12x13=		4x13=	

Learn these facts about triangle angles	
Acute angle= 1-89°	Right Angle= 90°
Obtuse angle= 91-179°	Reflex angle= 181-359°
Straight line= 180°	Checked:
I will test these by giving you an angle and then you telling me what sort of angle it is. This will need to be done at pace.	

Learn the 14 times table in order and out of order

1x14=		3x14=	**Practise 1:**
2x14=	**Practise 1:**	5x14=	
3x14=		8x14=	
4x14=		9x14=	**Practise 2:**
5x14=	**Practise 2:**	11x14=	
6x14=		2x14=	
7x14=		6x14=	
8x14=		12x14=	**Checked:**
9x14=	**Checked:**	1x14=	
10x14=		10x14=	
11x14=		7x14=	
12x14=		4x14=	

Learn these facts about circles	
What is a radius?	
What is a circumference?	
What is a diameter?	
How can you find the diameter? Is there an algebraic formula you could use?	

Learn the 15 times table in order and out of order

1x15=		3x15=	**Practise 1:**
2x15=	**Practise 1:**	5x15=	
3x15=		8x15=	
4x15=		9x15=	**Practise 2:**
5x15=	**Practise 2:**	11x15=	
6x15=		2x15=	
7x15=		6x15=	
8x15=		12x15=	**Checked:**
9x15=	**Checked:**	1x15=	
10x15=		10x15=	
11x15=		7x15=	
12x15=		4x15=	

Please learn these facts:

Mean: This is the average. You need to add up all of the numbers and then divide by the number of numbers.

Median: The middle value in the list of numbers

Mode: The value that occurs the most often.

Fill in the missing facts and then learn them.
I will be giving you a blank form for you to fill in as your test!

Number of sides	**Polygon Name**	**Number of triangles formed**	**Interior angle sum measure**
	Triangle		
	Quadrilateral		
	Pentagon		
	Hexagon		
	Heptagon		

If you can memorise these facts then why not try to find the algebraic formula for this pattern?

Memorise these conversions between percentages and degrees in a pie chart

10 %=36° 25%=90° 50%=180°

75%= 270° 33%=120°

Learn these divisibility rules

100- The last 2 digits are 00

25- The last 2 digits are 00,25,50 or 75

10- The last digit is 0

2- The last digit is 2,4,6,8,0

3-The sum of the digits are divisible by 4

4-The last 2 digits are divisible by 4

5- The last digit is 0 or 5

6-The number is even and divisible by 3

8- The last 3 digits are divisible by 8

9- The sum of the digits is divisible by 9

We will test this by giving you a number and you telling us what it is divisible by.

Well done for completing the challenge book! The last test will be to check that you have remembered all of you times table and division facts. You will be asked 10 questions that involve multiplying and 10 questions that involve division. You will need to complete these within 3 minutes.