DIAMOND CHALLENGE BOOK

NAME:……

CLASS:……

Learn these square roots

√ is the symbol for square root. They are opposites. 6^2= 36 because 6x6=36. So the square root of 36= 6 because 36÷6=6			
			Checked by:
√4=			
√9=			
√ 16=			
√ 25=			
√ 36=			
√ 49=			
√ 64=			
√ 81=			
√ 100=			
√ 121=			
√ 144			
Tested out of order			

Squaring decimals

When we calculate $(0.3)^2$ we must calculate 0.3x0.3. We know that 3x3=9. But now we must divide each of the 3s by 10 and therefore we must divide the 9 by 100. 9÷100= 0.09. So 0.3^2 is 0.09

	Practise 1	Practise 2	Checked
0.2^2			
0.3^2			
0.4^2			
0.5^2			
0.6^2			
0.7^2			
0.8^2			
0.9^2			

Definitions: Learn these and tell them to an adult

Square root:

Power:

Powers

We read 2^5 as 2 to the power of 5. This is the same as 2x2x2x2x2 which we work out by continuing to multiply 2. So, $2^5 = 32$				
	Practise 1	Practise 2	Practise 3	Checked
2^2				
2^3				
2^4				
2^5				
3^2				
3^3				
3^4				
3^5				
4^2				
4^3				
4^4				
4^5				
5^2				
5^3				
5^4				
5^5				

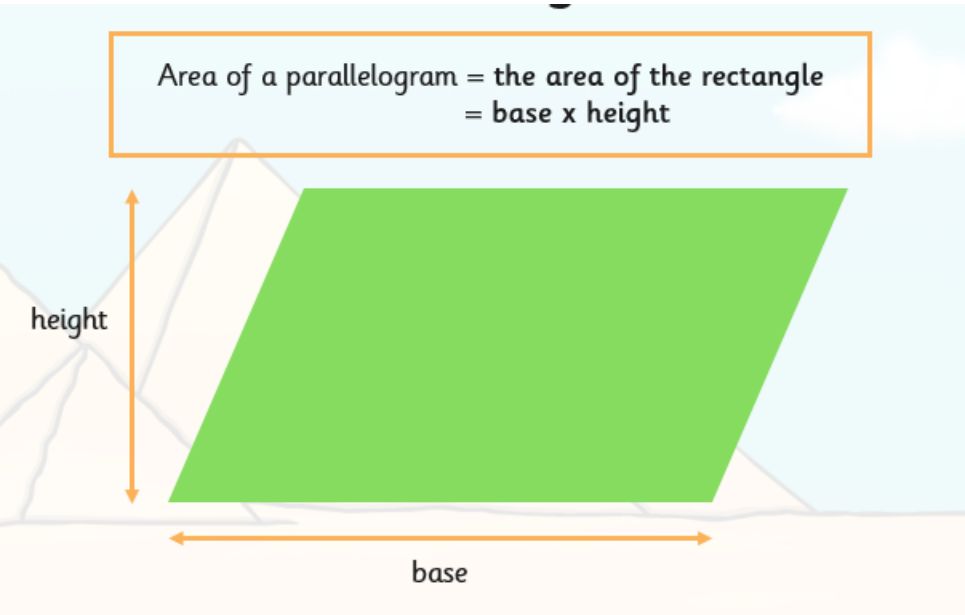
6^2				
6^3				
6^4				
6^5				

Cubing decimals

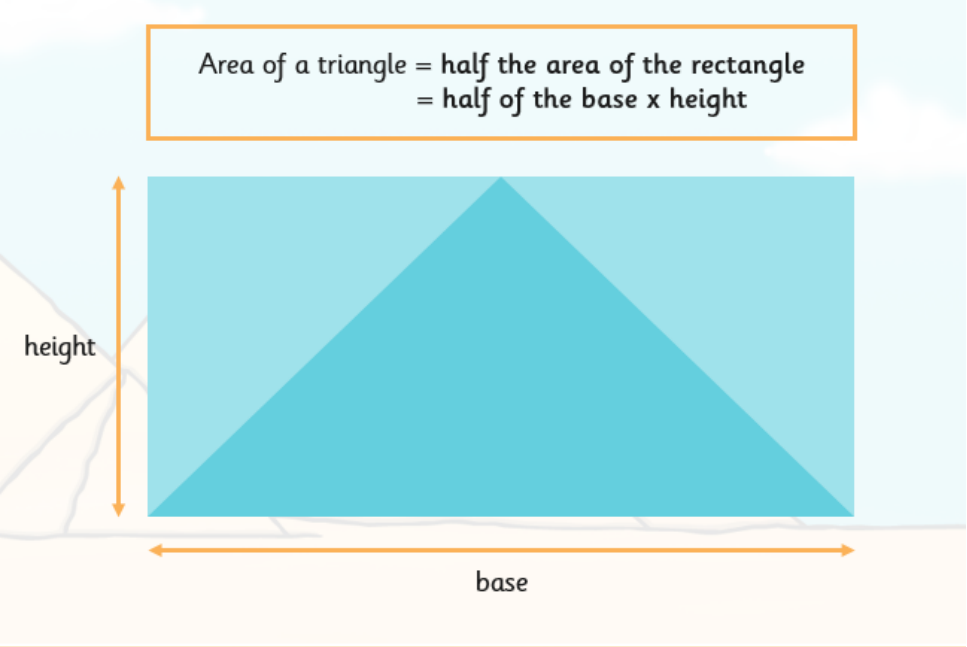
When we calculate $(0.4)^3$ we must calculate 0.4x0.4x0.4. We know that 4x4x4=64. But now we must divide each of the 4s by 10 and therefore we must divide the 64 by 1000. 64÷1000= 0.064. So 0.4^3 is 0.064

	Practise 1	Practise 2	Checked
0.2^3			
0.3^3			
0.4^3			
0.5^3			
0.6^3			
0.7^3			
0.8^3			
0.9^3			

Area of a parallelogram (Year 6 objective)



Area of a triangle (Year 6 objective)



These will be tested by the teacher giving you a question that you will have a short amount of time to complete.

Time facts Complete these time facts and learn them. **(Year 6 objective)**

	Checked 1	Checked 2	Checked 3
How many seconds in a minute ……..			
How many minutes in an hour? ……..			
How many hours in a day? ……..			
How many weeks in a year? ……..			
How many days does each month have? ……..			

24 hour clock. Please complete these facts and learn them			
13:00= 1.00pm	20:00=	03:00=	10:00=
14:00=	21:00=	04:00=	11:00=
15:00=	22:00=	05:00=	12:00=
16:00 =	23:00=	06:00=	
17:00 =	24:00=	07:00=	
18:00=	01:00=	08:00=	
19:00 =	02:00=	09:00=	

Learn these facts about triangles (Year 6 objective)

There are 4 types of triangle. They all have 3 sides and are polygons.

1. Equilateral

Equilateral triangles have 3 equal sides and 3 equal angles of 60°

2. Isosceles

Isosceles triangles have 2 equal sides and 2 equal angles.

3. Right-angled

1 of the angles is a right angle (90°) in right-angled triangles.

4. Scalene

Scalene triangles have no equal sides and no equal angles.