**Square, Square roots, cubes, cube roots**

**O level Mathematics by Anon**



**Squares and Square roots:**

The area of the square given is:

8cm x 8cm = 64 cm2

That’s is why we call 64 the *square* of 8

It can be represented as:

Now we look at the other way round.

How can we find out the side of the square that is of 64cm2?

We put,

Or

As

So we can say that 8 is the *square root* of 64.

It can be represented as:

So now we can say that:

 And

 And

 And

 And

 And so on…

We see above that the numbers 4, 9, 16, 25 are square of whole numbers 2, 3, 4, 5 respectively. The number 2, 3, 4, 5 are whole numbers so we call 4, 9, 16, 25 etc. as *perfect squares*.

**Cubes and cube roots:**

The volume of the cube given is:

That is why we can call 512 as *cube* of 8.

It can be represented as:

Now as before we look at the other way round.

What is the side of the cube that is 512cm3?

We put,

Or

As

So we can say 8 is the *cube root* of 512.

It can be represented as:

So now we can say that:

 And

 And

 And

 And

 And so on…

We again notice that the number 8, 27, 64, 125 are cubes of 2, 3, 4, 5 respectively. As the number 2, 3, 4, 5 are whole numbers, so we call 8, 27, 64, 125 etc. as *perfect cubes*