

## My mathematical journey

## What do I need to remember from before?

Multiplication and division (NP3)  
 Multiplying by composing and decomposing (NP3)  
 Multiples and factors (NP3)

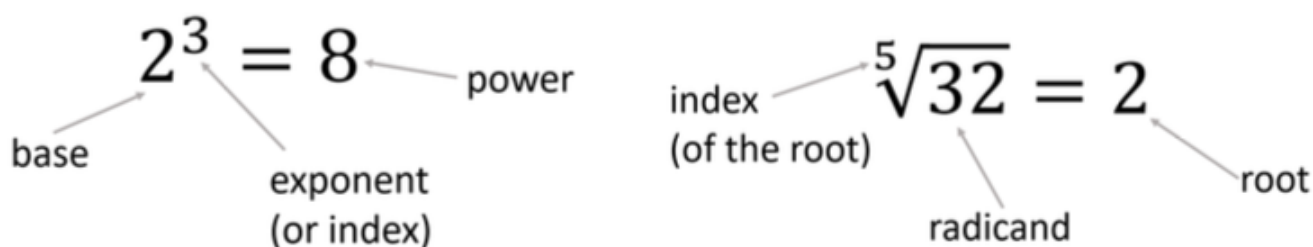
## What will I learn about in this unit?

Repeated multiplication  
 Powers and roots  
 Prime numbers  
 Composing and decomposing primes

## Where does this lead?

Order of operations (NP5)  
 Directed numbers (NP6)  
 Quadratics (A11)  
 Index laws (NP15)  
 Exponential growth (NP16)

## Key words and symbols: what I need to say and write accurately



The "radical" or "root" symbol:  $\sqrt{\quad}$

## Fingertip facts: what I need to learn by heart

The first fifteen square numbers:

Square number	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>	14 <sup>th</sup>	15 <sup>th</sup>
Value	1	4	9	16	25	36	49	64	81	100	121	144	169	196	225

The first ten cube numbers:

Cube number	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>
Value	1	8	27	64	125	216	343	512	729	1000

The prime numbers less than 100:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97