

## Goals

This week we are going to:

- Review indices, including fractional and negative, and the index laws
- Use radicals and convert to and from fractional indices
- Understand and use scientific notation and significant numbers
- Practise using CAS



## Theoretical Components

### Resources:

Maths Quest 11 Mathematical Methods  
**Chapter 5 Exponential and Logarithmic Functions** (see Google classroom)

Read and make notes:

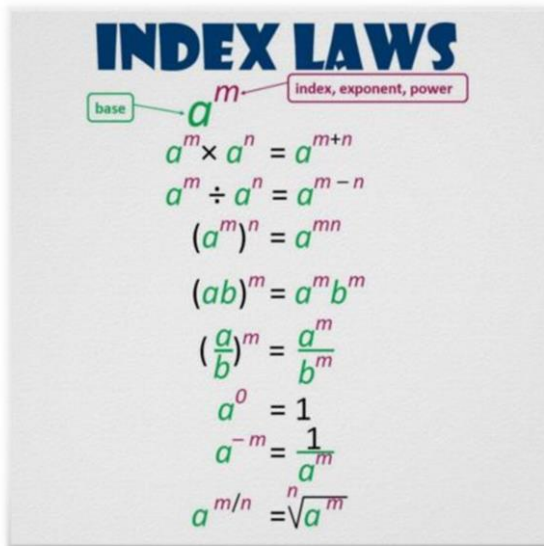
5A Index Laws

5B Negative and rational powers

Some youtube videos:

<https://www.youtube.com/watch?v=g5ZGDNxJwxA>

<https://www.youtube.com/watch?v=l2yuDvwYq5g>



Index\_Laws by sorana23

## Practical Components

### Do the following questions:

Organise your solutions neatly in your exercise book.

Chapter 5 Exponential and Logarithmic Functions  
(see PDF - Google classroom)

### Ex 5A Index laws

- Q's 1 (a,d), 2 (a,d), 3 (a,d), 4 (all), 7 (a,e), 8 (b,g,h), 10

### Ex 5B Negative and rational powers

- Q's 1 (all), 2 (any 4), 3 (any 4), 4, 5 (any 4)

**Mathspace.co** task – Scientific Notation (6 questions)

## Investigation

Q1. Show that  $\frac{pq^{-1}-p^{-1}q}{p^2q^{-2}-p^{-2}q^2} = \frac{pq}{p^2+q^2}$

Q2. Solve for n:

$$2^{3n+1} = 64$$

**QFO**  
Quiz/Forum/Other

Make sure you have joined the Google Classroom. If you have not, see your teacher.