

## Goals



Algebra – review:

- understand the structure, properties and behaviour of real numbers;
- be competent in operations involving real numbers;
- re-arrange a given expression to change the subject of formula;
- simplify algebraic expressions involving like and unlike terms;
- expand & simplify binomials and trinomials.

## Theoretical Components

### Resources:

You shall make brief notes or copy examples as you go through these links and text books.

Read:

- <http://www.karlscalculus.org/calc1.html> and <http://www.trottermath.net/personal/realnosys.html> on Number System;
- <http://www.mathsisfun.com/operation-order-pemdas.html> on Order of Operations & attempt the 8 questions you will find on this page.
- Watch this video on rearranging a formula to change the subject:  
<http://bit.ly/tzLAHw>
- <http://www.mathsisfun.com/algebra/substitution.html> on Substitution & attempt the 10 questions at the bottom of this page.
- Change of variables: <https://goo.gl/bS9tTG>

More examples:

- <https://goo.gl/aNauq2>

## Practical Components

Attempt all the questions:

- <https://goo.gl/zMC7pQ>

## Investigation

The following formula may be used to study planetary motion:

$$\frac{GmM}{R^2} = \frac{4m\pi^2R}{T^2}$$

Make T the subject of the formula.

## QFO

Quiz/Forum/Other

Complete the following quiz:

- <https://goo.gl/pK1Uxe>
- <https://goo.gl/bS9tTG>