**18 October 2019:**

**Superposition principal:**

Example:

So solution:

**Dynamic systems:**

We want to find solution in the form of where m can be a complex number

So we have,

Solve quadratic equation :

And thus, we have the following cases:

For case:



Example:

1. D = 0,

Verify that they are linearly independent:

So, general solution:



Verify that they are linearly independent

…

**Non homogenous equations:**

Ex.

So

Example: