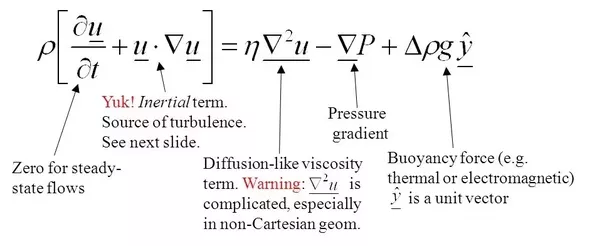
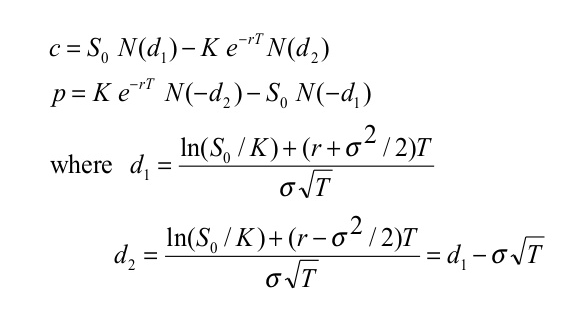
# Equations

### Motivation:

Navier-Stokes Equations

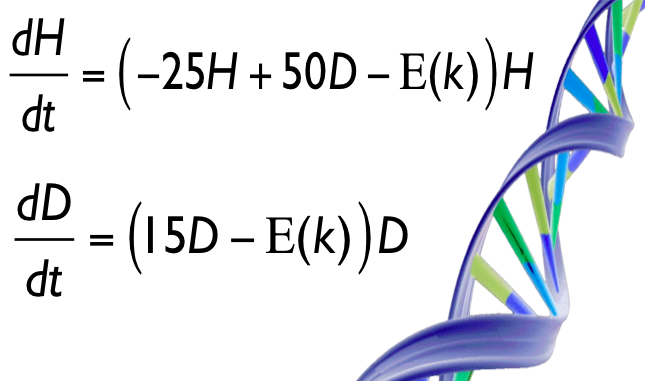


Black-Sholes Model



Mr. Pearce Investigates…





### Prior Knowledge:

To substitute values into expressions

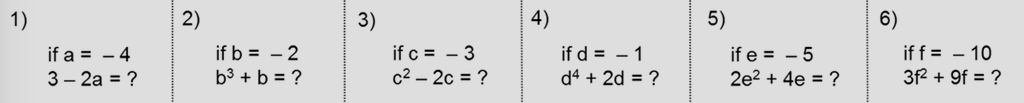
### Activities:

Check on mini-whiteboards

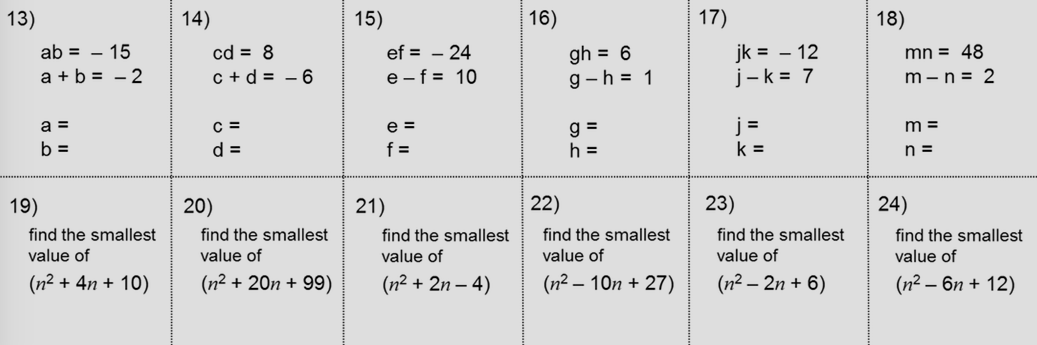
Substitute into

Substitute into

Substitute into



Teaching or Extension:



### Aims:

To know the definition of root, solution and to satisfy.

### Activities:

Class notes:

Title: **Equations**

A value satisfies an equation if it makes it true when substituted in.

A root is a value of a variable which satisfies an equation.

A solution is the set of all roots.

Example 1

For the equation

or

Example 2 (optional):

Show that and are roots of this equation:



so satisfies the equation.

\* Find a third root.

Practice: section A

### Aims:

To know how to trial possible roots to find the roots of an equation.

### Activities:

Use trial and error to find the solution of this equation, which has 2 roots:



Answers:

and

Practice: Section B