

NAME

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Subject

Differential Equation

Submitted to

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Assignment #

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ms. Application of ODE'S:

- 1) Newton's law of Cooling
- 2) Beam
- 3) Physical Application
- 4) Radio Active element
- 5) Electrical Circuits.
- 6) Modelling free mechanical
Oscillations.
- 7) No Damping.
- 8) Light Damping.
- 9) Heavy Damping
- 10) Computer exercise or activity.
- 11) Modelling with first order
Equations.

There are general major methods
for the solution of
PDE.

- 1) Separation of Variables.
- 2) Method of Characteristic.
- 3) Integral transform.
- 4) Super Position Principle.
- 5) Change of variable.
- 6) Lie group method.
- 7) Semianalytical method as well as various numerical method.

Application of PDEs:

Partial Differential Equations in many Engineering as Science problems such as heat transfer, elasticity, quantum mechanics, water flow and other the problems are governed by Partial Differential

Equation by nature, this type of
problem is much more
complicated than the previous
ordinary differential equation.