



Art's Commerce and Science College, Onda Tal:- Vikramgad, Dist:- Palghar

My Inspiration
Late. Shivalal
Dhamone
and
Shri. V. G. Patil
Saheb

Subject Teacher
Santosh Dhamone

Practical 1: Find the general solution of Langrange's equation.

Subject Teacher
Santosh Dhamone

Assistant Professor in Mathematics
Art's Commerce and Science College, Onda
Tal:- Vikramgad, Dist:- Palghar

ssdhamone@acscollegeonda.ac.in

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Find general solution of Lagrange's equation

Problem 1:

$$\text{Solve the PDE of } \frac{y^2 z}{x} p + xz q = y^2$$

Problem 2:

$$\text{Solve the PDE of } p + 3 q = 5z + \tan(y - 3x)$$

Problem 3:

$$\text{Solve the PDE of } yz \frac{b-c}{a} p + zx \frac{c-a}{b} q = \frac{a-b}{c} xy$$

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Problem 4:

Solve the PDE of $(y + z) p + (z + x) q = x + y$

Problem 5:

Solve the PDE of $(x + 2z) p + (4xz - y) q = 2x^2 + y$

Problem 6:

Solve the PDE of $(y - zx) p + (x + yz) q = x^2 + y^2$

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Problem 7:

$$\text{Solve the PDE of } x^2 \frac{\partial z}{\partial x} + y^2 \frac{\partial z}{\partial y} = (x + y)z$$

Problem 8:

$$\text{Find the general solution / complete integral of PDE } z(x p - y q) = y^2 - x^2$$

Problem 9:

$$\text{Find the general solution / complete integral of PDE } y^2 p - xy q = x(z - 2y)$$

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Problem 10:

Solve the PDE of $\frac{\partial z}{\partial x} + \frac{\partial z}{\partial y} = x + y + z$