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Subject

Calculus

Submitted to

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Optimization problem involving numbers.

## Applications of Integrations

- (1) Area b/w curves
- (2) Distance velocity, Acceleration
- (3) Volume
- (4) Average value of function
- (5) work
- (6) center of mass
- (7) kinetic energy, improper integrals.
- (8) Probability.
- (9) Surface Area.

Application of derivation and integration in Engineering.

Ans Application of derivation

Following are the application of derivation:

- (1) Tangent and Normal lines.
- (2) Rolle's Theorem
- (3) Lagrange's mean value Theorem
- (4) Newton's method.
- (5) Related Rules.
- (6) Linear Approximation
- (7) critical Point
- (8) Increase and decrease Functions
- (9) Convex Function
- (10) Inflection point
- (11) Curvature and Radius of curvature.