LECTURE SUMMARY 7.1

WEDNESDAY, JUN 22, 2016

ORDINARY DIFFERENTIAL EQUATIONS(ODEs)

1. Definitions.
2. Examples.
3. Order, Solution.
4. Direction fields.
5. Existence and Uniqueness Theorem for $y' = f(x, y), y(x_0) = y_0$.
6. Verifying Solutions.

SOLVE $y' = f(x)$

1. Integration methods.
2. Initial Value Problems(IVPs).

LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS

1. Form.
2. Homogeneous and non-homogeneous equations.
3. Existence and Uniqueness Theorem.
4. find Intervals where solutions exist.