LECTURE SUMMARY 7.2

FRIDAY, JUN 24, 2016

SOLVING LINEAR FIRST ORDER ODES

1. Method of integrating factor.
2. Examples.

LINEARITY

Definition: Linear differential equations are in the form
$$L(x, y, y', ..., y^{(n)}) = g(x),$$
where L satisfies the following two conditions:
1. If y_1 is a solution of $L = 0$, and C is any constant, then Cy_1 is also a solution of $L = 0$.
2. If y_1 and y_2 are solutions of $L = 0$, then $y_1 + y_2$ is also a solution of $L = 0$.