

Ordinary Differential Equations - Check your understanding

- What can you say about the set of solutions to a homogeneous linear differential equation?
- Why do we look at the Wronskian to decide whether a set of functions is linearly independent?
- If the Wronskian of a set of functions is equal to zero for a particular value of x , does it necessarily mean that the functions are linearly dependent? Why or why not?
- What condition should the Wronskian of n functions satisfy for these functions to be linearly independent?
- If you are given a basis of solutions to a linear differential equation, do you know how to find the differential equation?
- If you are given a basis of solutions to a linear differential equation, do you know how to write down the general solution?