

# Expectation checklist - Module 17

## At the completion of this module, you should:

- know how to express a  $2 \times 2$  system of linear differential equations in matrix form (both homogeneous and nonhomogeneous);
- be able to verify whether a given vector is a solution to a system of linear differential equations;
- be able to determine whether we are guaranteed the existence of a unique solution for an system IVP on a given interval;
- Determine whether a given 2-parameter family of solutions is a general solution by
  - finding if the functions within it form a fundamental set of solutions (this requires the Wronskian seen in this module);
- Solve a system of linear differential equations similar to the one seen in this module.

## Coming up next, we:

- Nothing. Such emptiness.