Expectation checklist - Module 12

At the completion of this module, you should:

- Be able to find the general solution for *any* 2nd-order homogeneous linear differential equations with constant coefficients;
- Understand how the following three cases arise in order 2, and how to write the corresponding solutions:
  - two distinct real roots,
  - one repeated root, and
  - complex conjugate roots;
- Be able to solve most higher order homogeneous linear differential equations so long as roots are able to be found, and in particular, those with distinct real roots; and
- Know where reduction of order is utilized, even if we omit its steps.

Coming up next, we:

- Solve some homogeneous linear differential equations!