1 Exercise 04

By the end of this set of problems, you will be familiar with:

- Modules
- Derived types
- Interfaces

All `program`s *must* contain `implicit none`. While not strictly necessary, it will eliminate an entire class of bugs.

You should use the lecture materials for help/inspiration, but please don't copy and paste! There is some value to be had in typing up the programs yourself.

There may be several ways to solve each problem. If you have time, you might like to try different approaches.

1.1 Integrate a function

1. Take your modified Euler integration program from the previous exercises and modify it so that you can pass in a function that takes the current values of y and t and returns the $fracdydt$