

Recall from Monday:

- when a quantity  $A(t)$  grows at a rate proportional to the amount present, its growth is described by the differential equation  $A' = kA$ , where  $k$  is the constant of proportionality.
- The general solution to this D.E. is  $A(t) = Ce^{kt}$ . For any particular situation, you need to find  $C$  and  $k$ , using what you know about your quantity.
- $C = A(0)$  = the amount present at time  $t = 0$ .