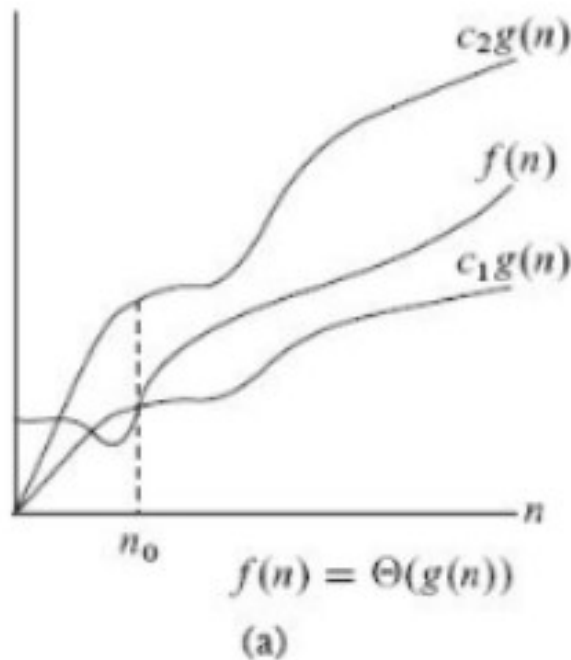
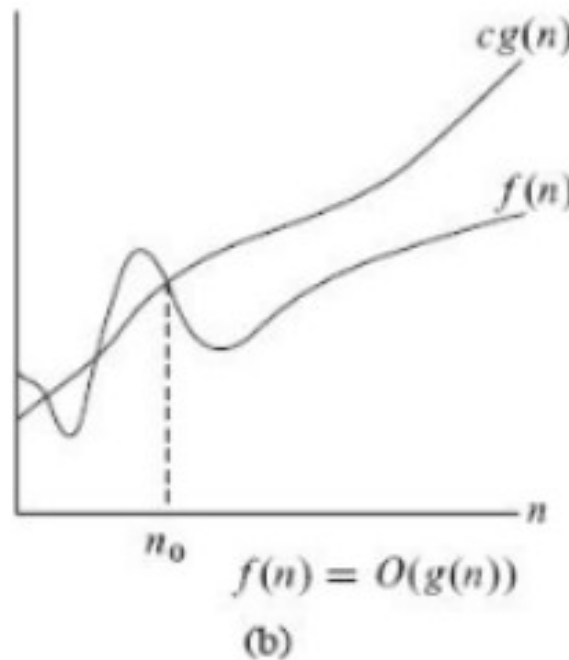


# Asymptotic Notations

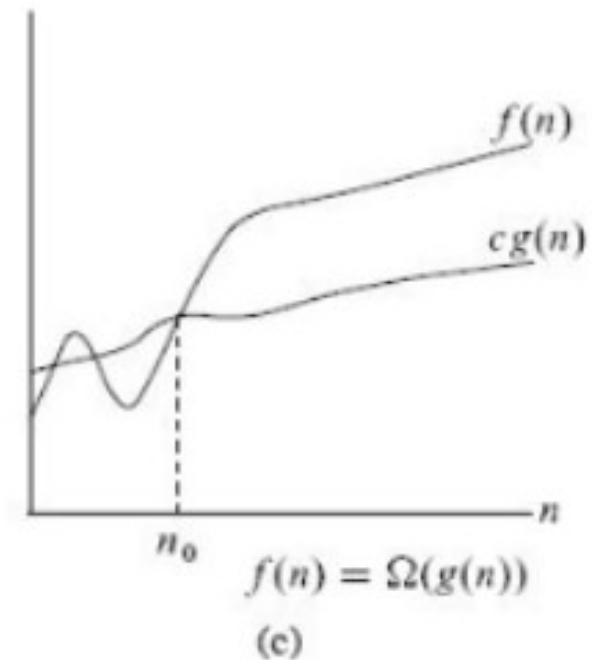
- Mathematical notations that describe the limiting behavior of a function when the argument tends towards a particular value or infinity
  - In Computer Science, these are used to classify/compare algorithms according to how their run time or space requirements grow as the input size grows



$f$  is bounded **both above and below** by  $g$  asymptotically



$f$  is bounded **above** by  $g$  asymptotically



$f$  is bounded **below** by  $g$  asymptotically

Refer textbook CLRS