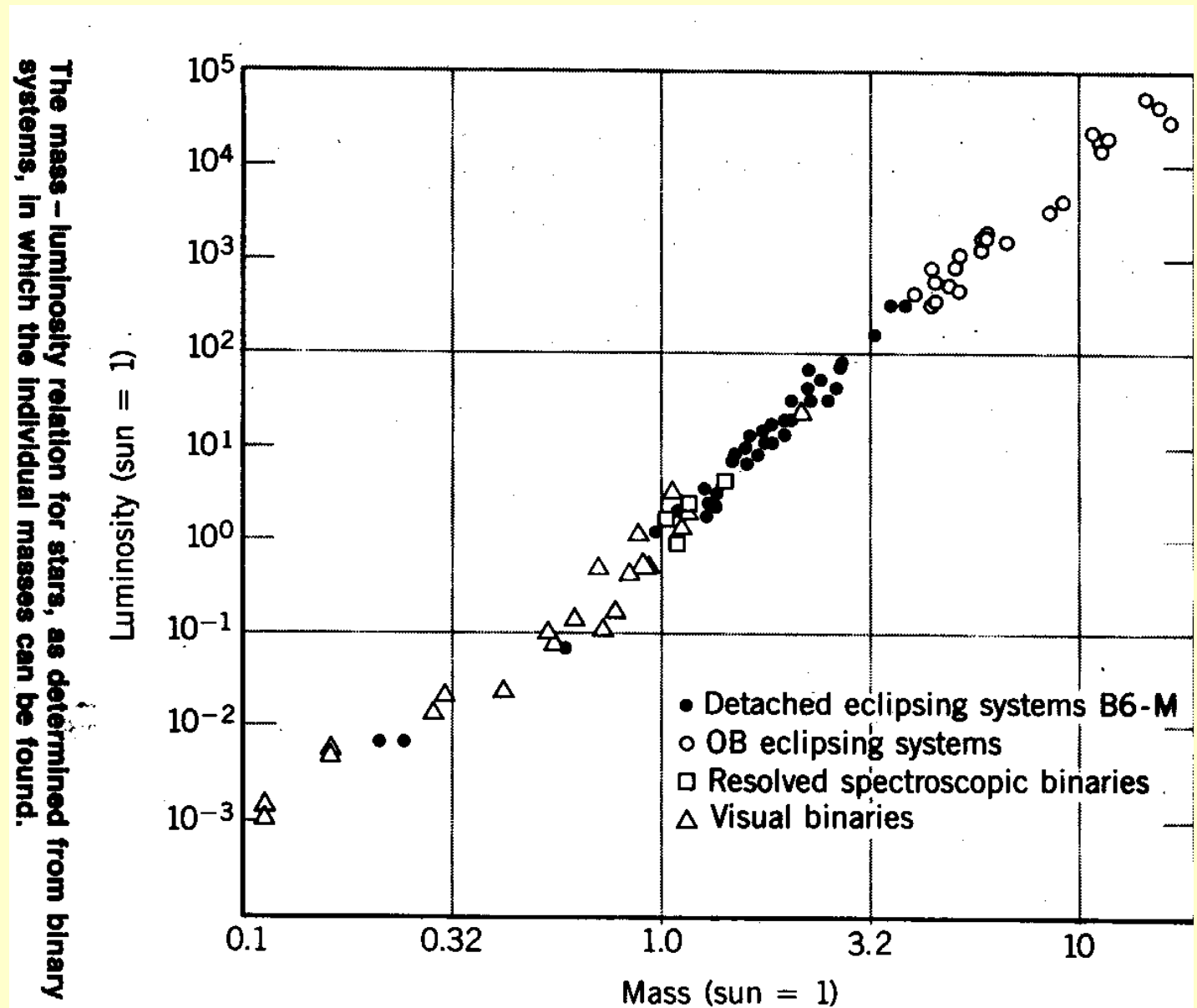


# Stars: the mass-luminosity relation

Binaries allow  
a good measure  
of the mass.



Source: University of Oregon Introduction to Astrophysics, [Mass–Luminosity Relation](#), Image ID: ml.gif

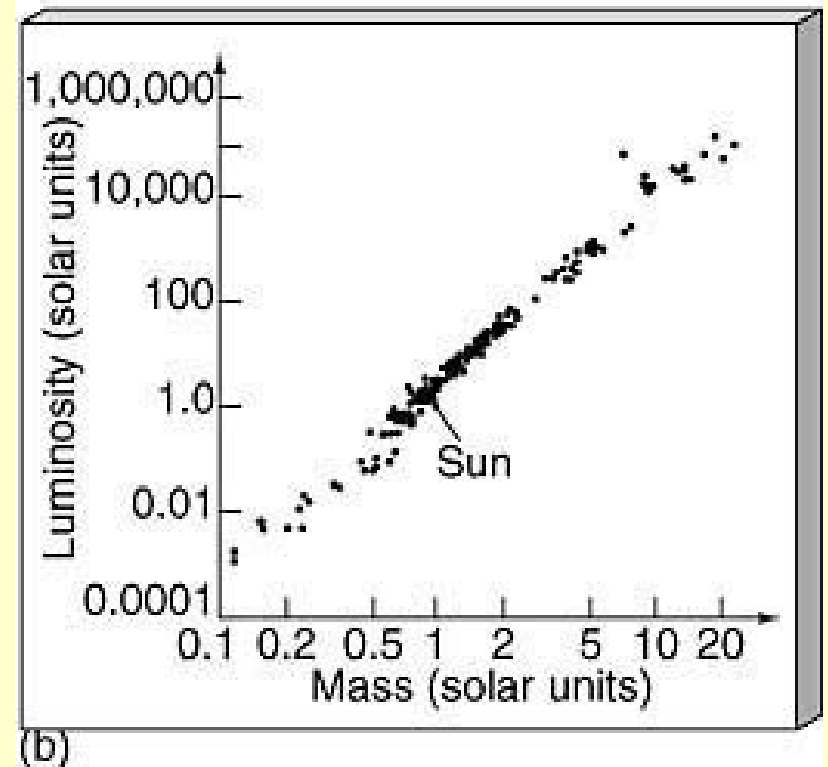
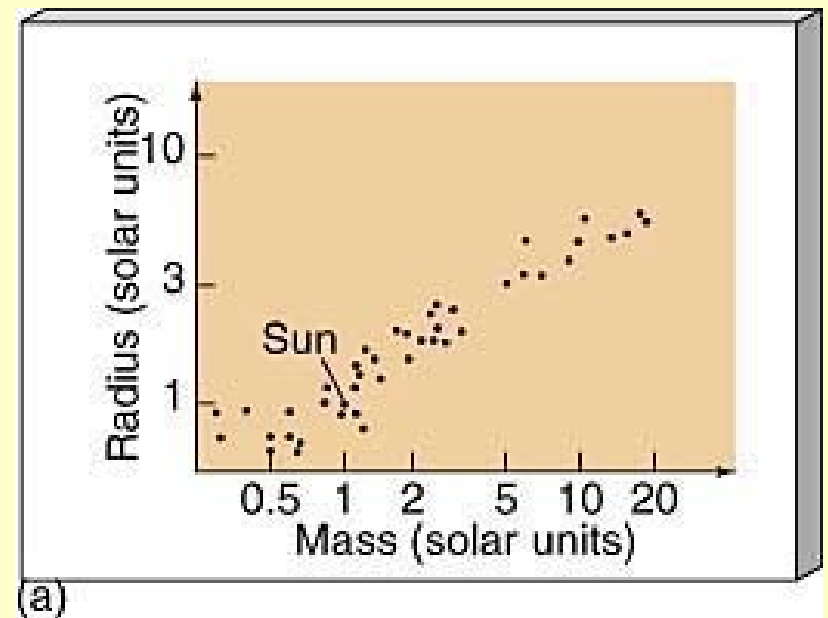
From <http://chinook.kpc.alaska.edu/~ifafv/lecture/lecmeas.htm>

## Mass-Radius

and

## Mass-Luminosity relations.

(a) Dependence of stellar radius on mass for main-sequence stars. The radius increases roughly in proportion to the mass over much of the range. (b) Dependence of luminosity on mass. The luminosity increases much faster than the mass.



The above relations are true for main sequence stars.  
Here there is the mass-radius relation for several astronomical bodies.

