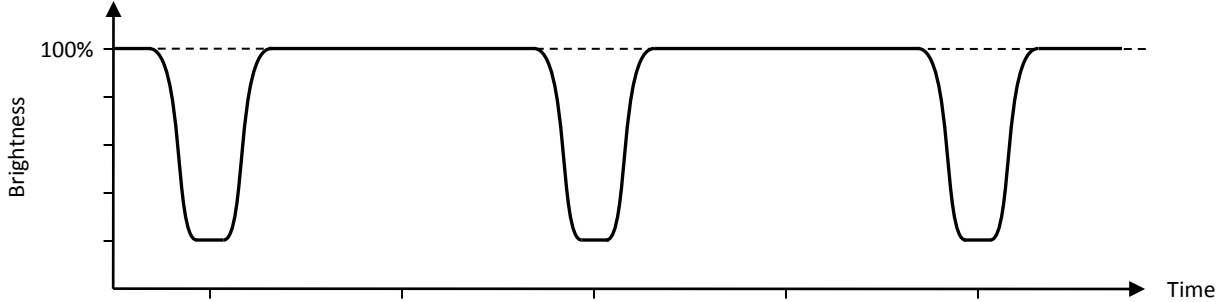


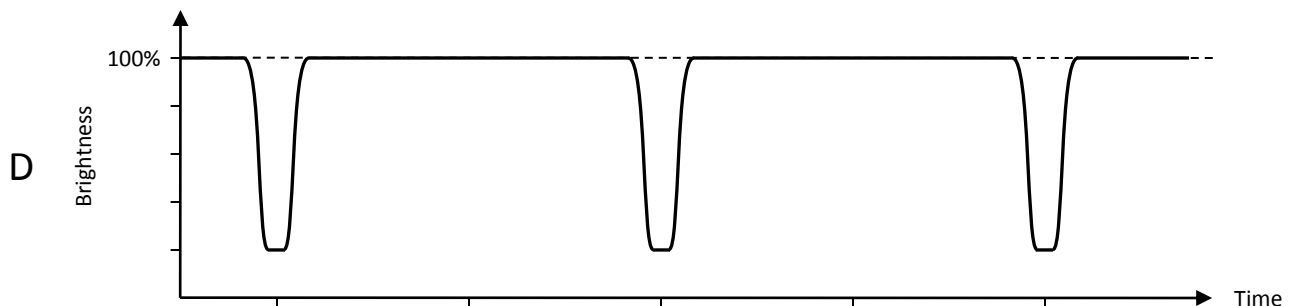
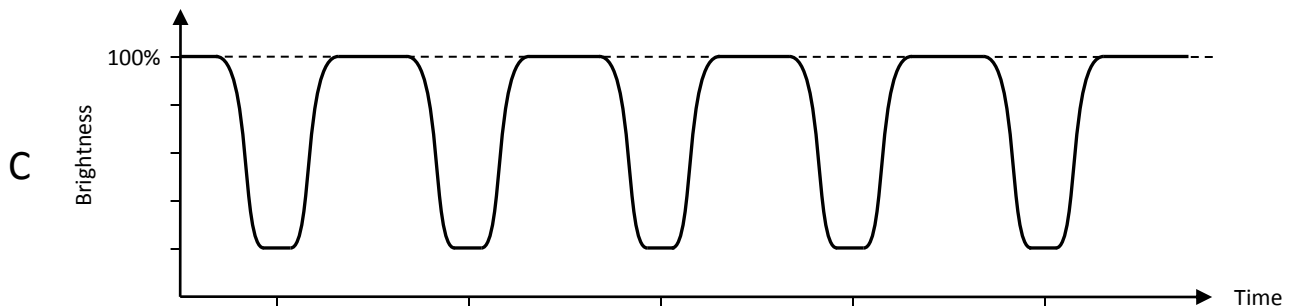
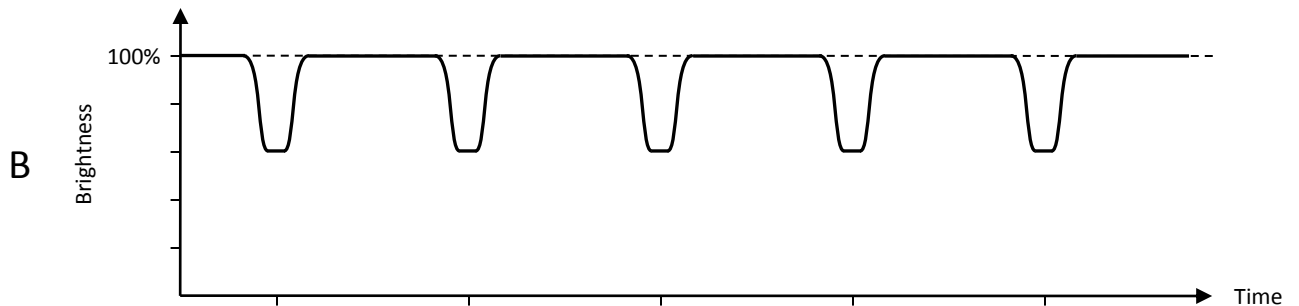
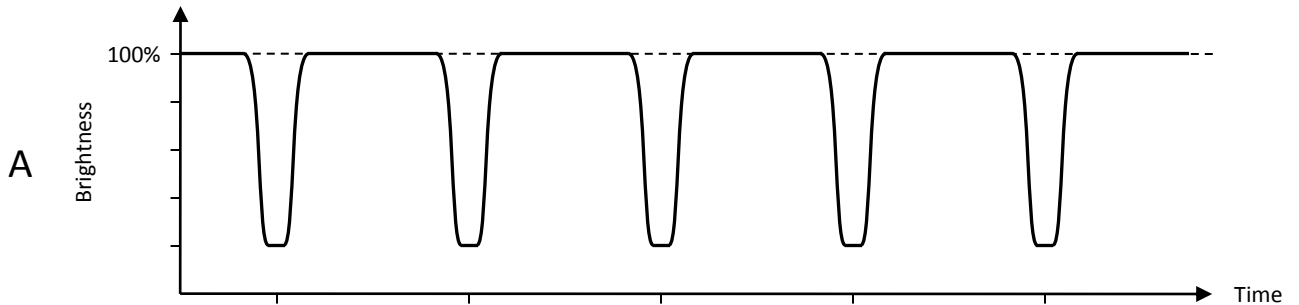
Transiting Extrasolar Planets

See planetquest.jpl.nasa.gov

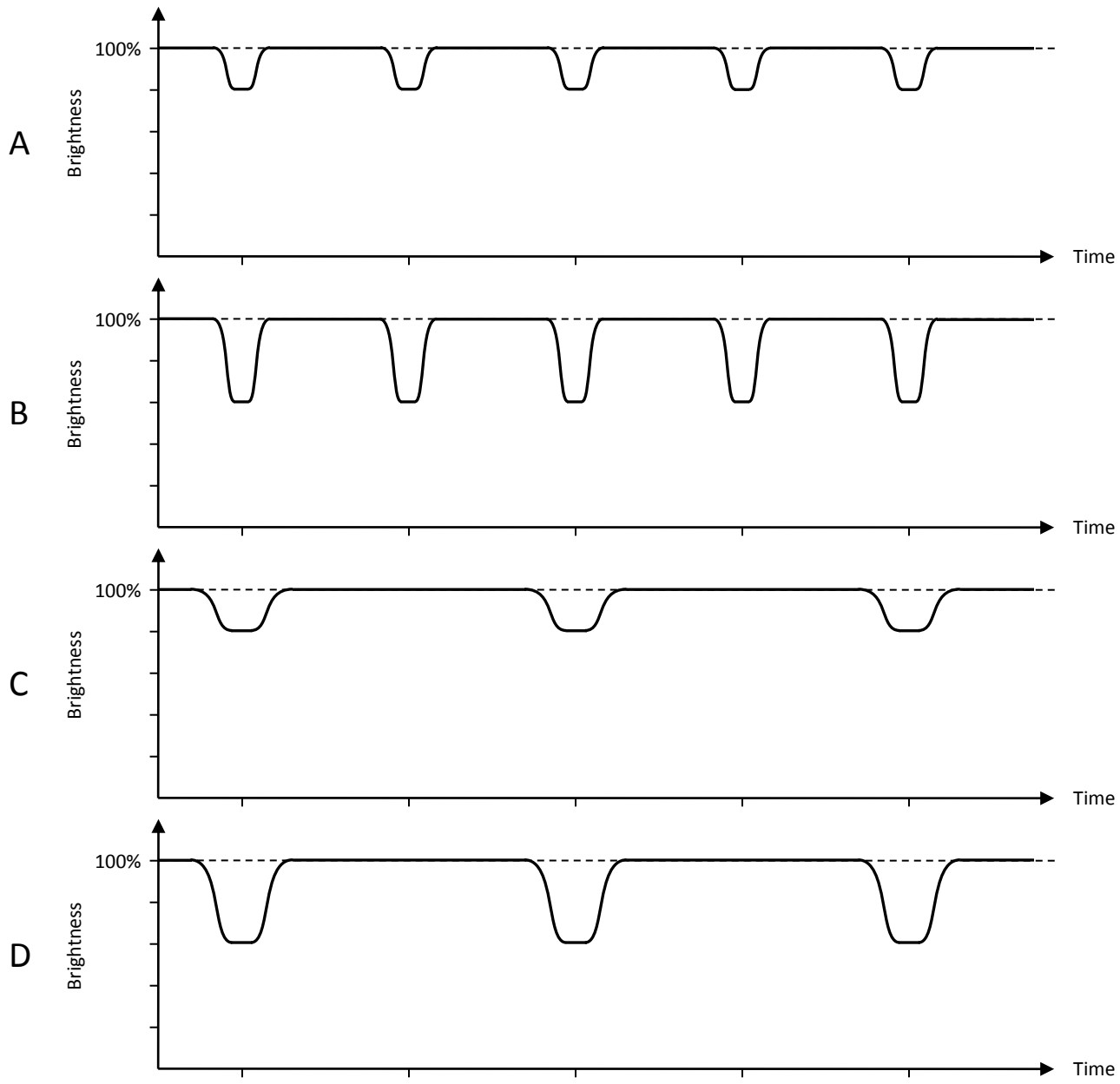
If an extrasolar planet passes between its star and us, we may observe a dip in the brightness of star as the extrasolar planet temporarily blocks some starlight. Patterns in the star's light curve can reveal the presence of an extrasolar planet and its characteristics. Suppose this light curve represents the data from the first demonstration.



1. If the extrasolar planet orbits its star twice as fast (that is, the orbital period is only half as long), which of the following graphs A–D would be the star's light curve?



2. If the first extrasolar planet is switched for one with the same period but only 1/2 the diameter, which of the following graphs A–D would be the star’s light curve?



3. The time between the dips tells us the (circle one) diameter orbital period of the extrasolar planet. Explain why:

4. The depth of the dips tells us the (circle one) diameter orbital period of the extrasolar planet. Explain why: