
Astronomy 311: Quiz 1 Solutions

1. it adheres to the scientific method: hypothesize, test, and revise/reject
2. (a)
3. (d)
4. (b)
5. (c)
6. F, T, T, F
7. Gravitational forces would collapse a finite universe as outer ('edge') stars would have nothing to balance the inward pull of other stars. His solution was to add an infinite number of uniformly placed stars to carefully balance all of the gravitational pulls. The resulting universe would have to be unchanging since any variation would ruin the balance and cause a collapse. However, an infinite number of uniformly placed stars in an unchanging universe would mean that light would have had sufficient time to reach us from every point in the sky - resulting in a bright night sky, or *Olber's Paradox*
8. any answer