
Astronomy 311: *Quiz 3 Solutions*

1. Newton had an equation describing the effects of gravity, but NO explanation what caused it. Einstein viewed gravity as resulting from mass and energy curving spacetime.
2. (d)
3. (b)
4. (c)
5. F, T, F, F
6. Mercury's orbit, bending of massless light by Sun/grav lensing, mass in particle accelerators, atomic clocks in planes, GPS; must include a description with any of these
7. Fusion of 4 hydrogen to yield helium + E (via $E = mc^2$) in the hot, dense core of stars; the H 'fuel' in core runs out, and the balance between gravity and fusion pressure ends; this leads to the 'death' of the star (sometimes slowly, but in other cases quickly and dramatically!)