The c constant is as we know the speed of light and when large masses move at a speed near the speed of light its known that time should dilate till time passing actually ends up being zero now if we look at photons moving at the speed of light we could say that it has a c constant however there should be more to that because photons should time dilate too now when we look at the photons that should time dilate and it doesn't we could say that its because it's the smallest mass or maybe even because its massless now when we look at bigger masses we find that the masses actually time dilate maybe because the masses have larger mass than photons so assuming that the photon is the base of all masses we could assume that particles having mass are the only ones that time dilate but the photon being the base of all masses we could say that a photon moves 1 m/s if the time increases to c or 3*10^8 s now when we look again we find that photons never change the distance it takes in one sec that is c more over time never dilates for photons because again it has a c constant meaning that if you dilate time you would end up increasing the distance by which the photon moves in one sec so if we look again we could say that photons do not experience time dilation but then this effects larger masses than the base of a photon now lets see the photon equations:

C=3*10^8/1=3*10^8 m/s and c=3*10^8/3*10^8=1 m/s if time dilates for photons and if we take the c=1 or the second equation we could throw it onto the masses as we say that as the 1 kg mass moves at a distance of 1 m/s we would find that it takes the force that pushed the photon now imagine we give 3*10^8 the force that pushed the photon we get to the 1 kg moving at the speed of light and maximum time dilation now suppose we look at the largest mass in the universe at the middle of the universe it could be estimated to be of c*c*c=(3*10^8)^3 where the first c is the force and the second c the inertia the the last c the time dilation refutation