1. $\mathrm{d}s^2 = \mathrm{d}t^2 - a^2(t)(\mathrm{d}x^2 + \mathrm{d}y^2 + \mathrm{d}z^2)$
2. redshift
    - $\dfrac{\lambda(t)}{\lambda(T)} = \dfrac{a(t)}{a(T)}$
    - $z(T) = \dfrac{\lambda(t)}{\lambda(T)} - 1$
3. $v = H_0 D$