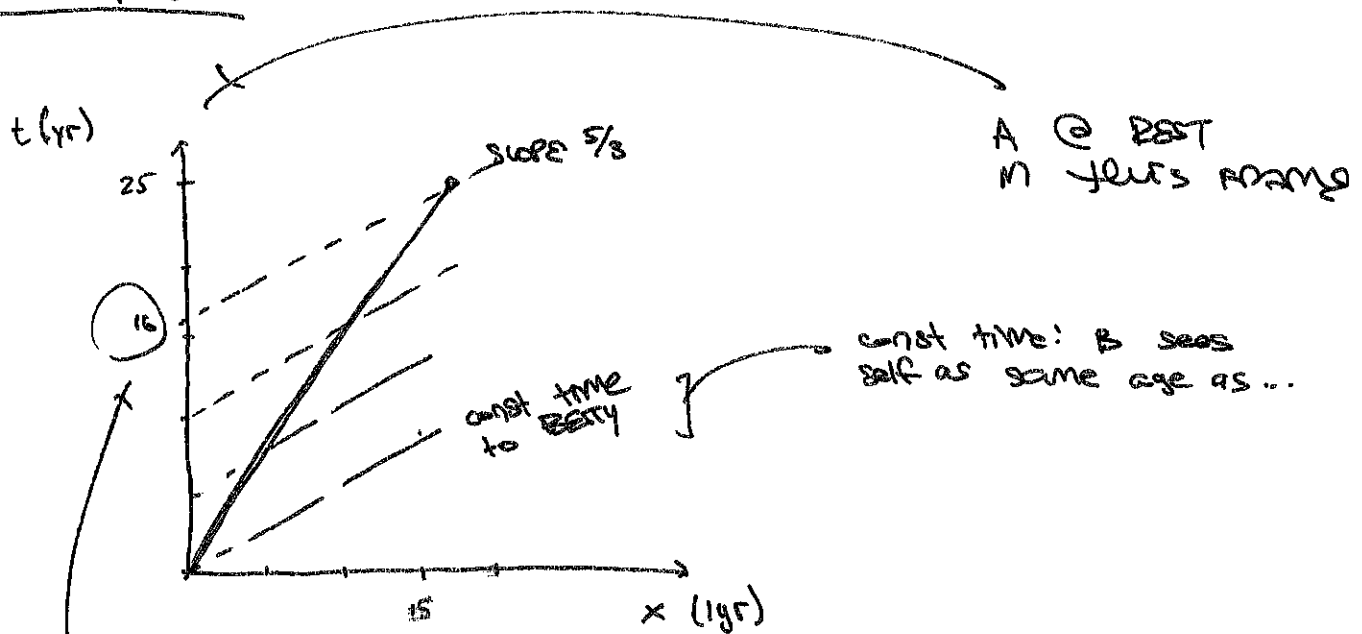
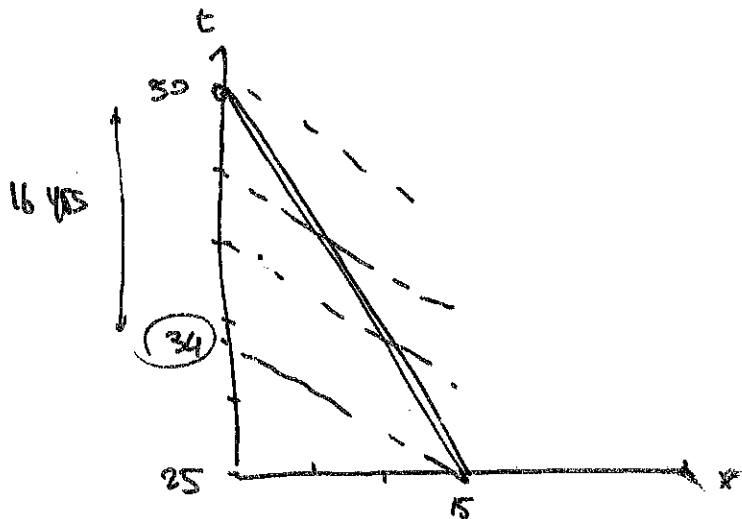


TWIN PARADOX on S'



A @ REST
11 years ADAMO

B observes A to have aged $4/5$ as much in 1st 25y.



there's a JUMP
when B accelerates.

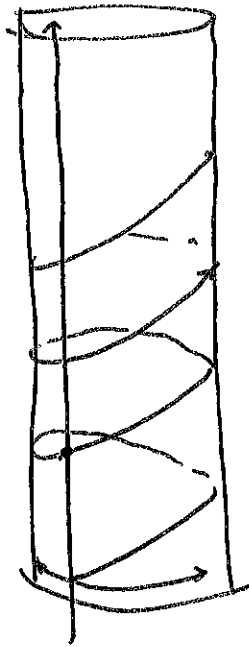
@ REUNION: AGREE:

B is 40
A is 50

nb: nothing mystical about acceleration.

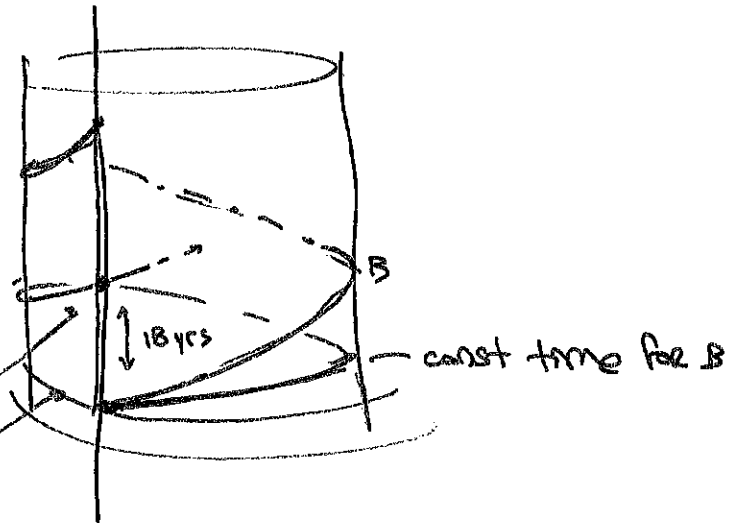
this treatment from: J. WEEKS, twin paradox in a closed universe

The American Mathematical Monthly 108 585 (2001)



cyclic case.

ASSUME ~~that~~ $2\pi R = 30 \text{ ly}$



B sees self as same age as TWO
COPIES OF A: one is 18 yrs older!
↑ 24 yrs away!!
↑ call this A_2

B travels $\boxed{40 \text{ yrs}}$ to go around
cylinder \rightarrow same 15 + 15 = 30 ly
as before

in this time: A_2 AGES $(\frac{4}{5})(40) = 32$

BUT STARTED 18 yrs AHEAD

$$\uparrow 18 + 32 = \boxed{50 \text{ yrs}}$$

↑
same result as
noncompact case