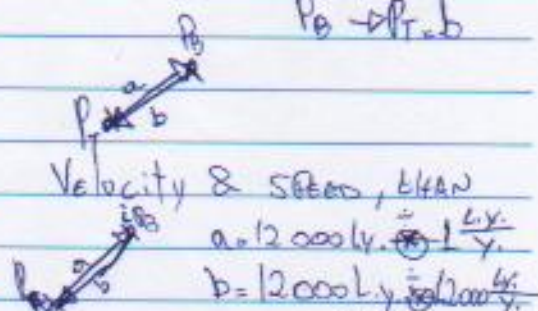


$$P_T \rightarrow P_B = a = 12000 \text{ ly.}$$

$$P = N$$

$$N = 1000 \quad a = 12000 \text{ ly.}$$

$$P_B \rightarrow P_T = b$$

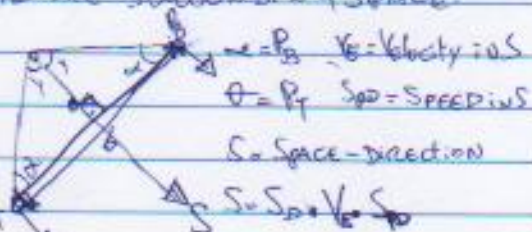


Velocity & Speed, than  
 $a = 12000 \text{ ly.}$   
 $b = 12000 \text{ ly.}$

So observer (i) & (ii) <sup>where</sup> given:  
 $L_0 = 1 \text{ ly.}$ ,  $L = 12000 \text{ ly.}$   
 Thus these quantities denominates  
 the distance travelled within the

perception of time. For observer i in the case, time in  $P_T$  seems to be  
 accelerated, but beyond it, the amount of interaction rec.  $L \cdot y.$  is truly  
 greater at  $L_0$ , which moves relatively ~~to the~~ <sup>to the</sup> surrounding space.

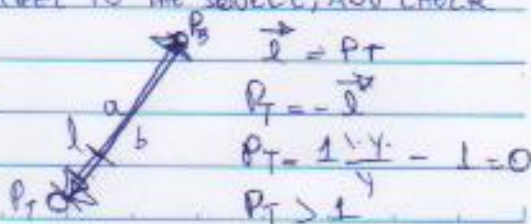
$$\vec{P_T} = \vec{P_B}, \quad a = P_B + P_T = 180^\circ$$



coming back after traveling with  $a$ ,  
 in  $b$ ,  $P_T$  seems to rapidly advance to return  $P_T$ .  
 So when it arrives, the past  $P_T$  is gone, but, again

in fact  $P_T$  where already aged, it occurred while  $a$  was going on.  
 Thus,  $b$  perception can check something beyond  $P_B$  and  $a$  about  $P_T$ .  
 While  $P_B$  gets an old image,  $b$  goes further to the source, and check  
 more recent information about  $P_T$ .

From  $P_T$ , light can't be seen reflecting  
 $b$  until it reaches  $L$  length.  $L$  length is  
 the length where enough time to light reaches  $P_T$ .



$$\vec{L} = P_T$$

$$P_T = -\vec{L}$$

$$P_T = 1 \text{ ly.} - 1 = 0$$

$$P_T > 1$$