CHAPTER OVERVIEW

3: Kinematics

At this stage, many students raise the following questions, which turn out to be related to one another:

1. According to Einstein, if observers A and B aren't at rest relative to each other, then A says B's time is slow, but B says A is the slow one. How can this be? If A says B is slow, shouldn't B say A is fast? After all, if I took a pill that sped up my brain, everyone else would seem slow to me, and I would seem fast to them.
2. Suppose I keep accelerating my spaceship steadily. What happens when I get to the speed of light?
3. In all the diagrams in Section 1.4, the parallelograms have their diagonals stretched and squished by a certain factor, which depends on v. What is the interpretation of this factor?

Topic hierarchy

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