



Daily Article (Bharath's Reading list) - Answers and Explanations 08.11.2023

Article link : [Link](#) (How to Think About Relativity)

1. How, according to the author, is his presentation of special relativity in the article a "little different"?

- A. He takes a bottom-up approach, starting with our everyday conceptions of space and time and altering them in the new context of relativity
- B. He takes a top-down approach, taking the idea of a unified space-time seriously from the get-go and seeing what that implies
- C. He explains how space-time is a unified four-dimensional continuum and explores questions about its shape
- D. None of the above

Explanation : B

Note the lines, 'We're going to be a little different. Our route into special relativity might be thought of as top-down, taking the idea of a unified space-time seriously from the get-go and seeing what that implies.'

2. According to the theory of relativity, the duration of time that you experience when you actually travel between two points in space:

- A. Is not the same as the universal coordinate time
- B. Can be measured by a clock that you carry with you on the journey
- C. Will depend on the path you take
- D. All the above

Explanation: D

All given points are true, based on the article.

3. How, according to the article, is time not like space?

- A. Time is unidirectional and irreversible, with its asymmetry marked by the arrow of time
- B. While in space, a straight line describes the shortest distance between two points, in space-time, a straight path yields the longest elapsed time between two events
- C. Straight lines in space are the shortest possible distance; straight paths in space-time are the shortest possible time
- D. All of the above

Explanation: B

Option B is true. Options A and C are factually incorrect.