Problem Set #3

Due: 3 Oct 2024 At the beginning of class

September 26, 2024

Q1: Momentum Transformed

In Thursday's class, we derived the Lorentz transformation for energy. Using similar reasoning, derive the Lorentz transformation for the x component of momentum. Show you work, and explain the steps in your reasoning process from one line to the next.

Q2: Taylor, 2.16

Q3: Taylor, 2.18

Q4: Taylor, 2.29

Q5: Taylor, 2.38