## Answer on Question #63076, Physics / Mechanics | Relativity

A pi meson is moving at a speed of 0.85c relative to a flat surface. The flat surface has a length of 3.2m when at rest on Earth. Calculate the length of the flat surface in the reference frame of the pi-meson.

Find: I - ?  
Given:  
v=0.85 c  

$$l_0=3.2 \text{ m}$$
  
Solution:  
 $l = l_0 \sqrt{1 - \frac{v^2}{c^2}} (1)$   
Of (1)  $\Rightarrow$  I=1.69 m  
Answer:  
1.69 m

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