

Name:

1) CLASS(2)

Hendrick Lorentz is 52 years old and starts to travel to another close planet which is 20 ly away. The spaceship velocity is $9c/10$. How old is he when he arrives to the other planet? **[4 pts]**

2) CLASS(2)

Henri Poincaré and Albert Einstein are on top of the ice. Take their rest masses to be $m_H = 3/2m_A$. The surface of the ice is frictionless and the speed of light is $c = 3 \text{ m/s}$. As they were standing at rest, they push each other away. We know $v_A = 9c/10$. Find v_H . **[6 pts]**