73. The strategy is to find the speed from $E = 1533$ MeV and $mc^2 = 0.511$ MeV (see Table 38-3) and from that find the time. From the energy relation (Eq. 38-45), we obtain

$$v = c\sqrt{1 - \left(\frac{mc^2}{E}\right)^2} = 0.99999994c \approx c$$

so that we conclude it took the electron 26 y to reach us. In order to transform to its own "clock" it's useful to compute γ directly from Eq. 38-45:

$$\gamma = \frac{E}{mc^2} = 3000$$

though if one is careful one can also get this result from $\gamma = 1/\sqrt{1-(v/c)^2}$. Then, Eq. 38-7 leads to

$$\Delta t_0 = \frac{26\text{ y}}{\gamma} = 0.0087\,\text{y}$$

so that the electron "concludes" the distance he traveled is 0.0087 light-years (stated differently, the Earth, which is rushing towards him at very nearly the speed of light, seemed to start its journey from a distance of 0.0087 light-years away).