

ADVANCED DYNAMICS — PHY 4241/5227
SOLUTIONS – SET 9

(27)

$$\Delta t = \frac{\tau}{\sqrt{1 - (0.995)^2}} = \frac{1051 \times 10^{-15} s}{0.099875} = 1.0523 \times 10^{-11} s$$

$$\Delta x = \Delta t \times 0.995 c = 0.00314 m \quad (c \text{ speed of light}).$$