

88. (a) With  $r = 0.15$  m and  $a = 3.0 \times 10^6$  m/s<sup>2</sup>, Eq. 4-32 gives

$$v = \sqrt{ra} = 6.7 \times 10^6 \text{ m/s} .$$

(b) The period is given by Eq. 4-33:

$$T = \frac{2\pi r}{v} = 1.4 \times 10^{-7} \text{ s} .$$