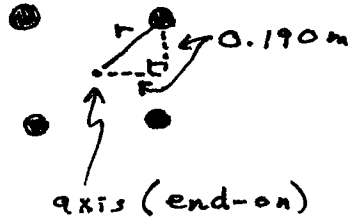


Exercise 9-20

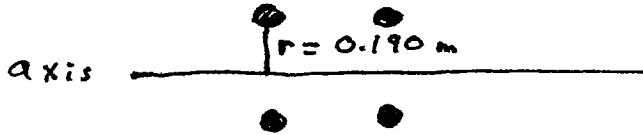
(a)  $I = \sum_i m_i r_i^2$



For each sphere,  $r^2 = [(0.190)^2 + (0.190)^2] \text{ m}^2$   
 $= 0.0722 \text{ m}^2$

$\therefore I = 4(0.250 \text{ kg})(0.0722 \text{ m}^2) = 0.0722 \text{ kg}\cdot\text{m}^2$

(b)



For each sphere,  $r = 0.190 \text{ m}$

$\therefore I = 4(0.250 \text{ kg})(0.190 \text{ m})^2 = 0.0361 \text{ kg}\cdot\text{m}^2$