$$R_1(h/3) = \frac{3R_0(h/3) - R_0(h)}{2}$$

$$= \frac{1}{2}\left[2M - K_1 h + K_1 h - K_2\frac{3h^2}{9} + K_2 h^2 - K_3\frac{3h^3}{27} + K_3 h^3 + \cdots\right]$$

$$= \frac{1}{2}\left[2M + K_1(0) + K_2 h^2\left(1 - \frac{3}{9}\right) + K_3 h^3\left(1 - \frac{3}{27}\right) + \cdots\right]$$

$$\frac{9}{9} - \frac{3}{9}$$
$$\frac{6}{9}$$
$$\frac{2}{3}$$

$$\frac{27}{27} - \frac{3}{27}$$
$$\frac{24}{27}$$
$$\frac{8}{9}$$

$$R_1(h/3) = \frac{1}{2}\left[2M + \frac{2}{3}K_2 h^2 + \frac{8}{9}K_3 h^3 + \cdots\right]$$

$$= M + \frac{1}{3}K_2 h^2 + \frac{4}{9}K_3 h^3 + \cdots$$