

$$t_i = t_{i+1} + \frac{2\pi}{M^{1/2}} \left[\frac{p_i + \left(\frac{M^{5/2}}{p_i^{3/2}} \right) A(e_i, \eta)}{1 - e_i^2 + \left(\frac{M}{p_i} \right)^{5/2} B(e_i)} \right]^{3/2}$$