

$\alpha \beta - 3$

The size of the Sun on the Mars is θ_1 ,

The size of the Sun on the Earth is $\theta_2 = 32'$.

$$\frac{\theta_1}{\theta_2} = \frac{d_{s-e}}{d_{s-m}}$$

$$\therefore \theta_1 = \frac{d_{s-e}}{d_{s-m}} \cdot \theta_2 = 21'$$

$$W_M = \frac{2\pi}{T_M} = 1.31' / h$$

$$W_M' = W_M \cdot \sin \alpha = 0.558' / h$$

$$\therefore t = \frac{\theta_1}{W_M'} = 37.7 h$$

\therefore The rise of the Sun will use 37.7h

