

Question

The mean distance of mars from sun is 1.5 times that of earth from sun. what is approximately the number of year required by mars to makes one revolution about sun ?

A 2.35years

B 1.85years

C 3.5years

D 2.75years

3)

Solution

For Planet revolving around the Sun

$$T^2 \propto R^3$$

$$\frac{T_1^2}{T_2^2} = \frac{R_1^3}{R_2^3}$$

$$T_m = (1.52)^{3/2} \times 1 \text{ year}$$

$$T_m = 1.88 \text{ year}$$

Ans. (B)