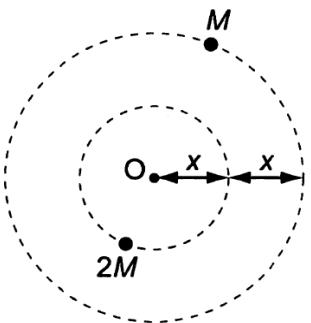


- 12 Two stars of mass  $M$  and  $2M$ , a distance  $3x$  apart, rotate in circles about their common centre of mass O.



What is the angular speed of the star of mass  $2M$ ?

A  $\frac{1}{3}\sqrt{\frac{GM}{x^3}}$

B  $\frac{1}{3}\sqrt{\frac{2GM}{x^3}}$

C  $\frac{1}{2}\sqrt{\frac{GM}{x^3}}$

D  $\sqrt{\frac{GM}{x^3}}$

