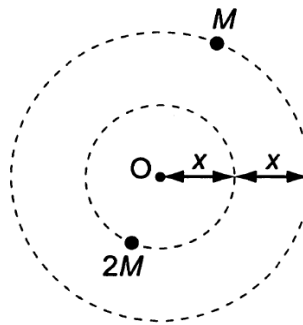


- 12 Two stars of mass  $M$  and  $2M$ , a distance  $3x$  apart, rotate in circles about their common centre of mass  $O$ .



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

