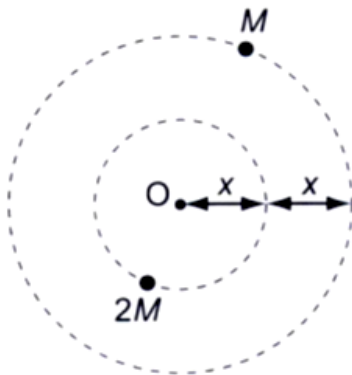**17** Two stars of mass M and $2M$, a distance $3x$ apart, rotate in circles about their common centre of mass O.

The gravitational force acting on the stars can be written as $\dfrac{kGM^2}{x^2}$.

What is the value of k?

A   0.22   **B**   0.50   **C**   0.67   **D**   2.0