

- 9** Two binary stars of equal mass are in circular orbit around a point midway between them at a rate of one revolution every 1.2 years. The distance between the stars is constant at  $1.6 \times 10^{12}$  m. What is the mass of each star?

**A**  $1.3 \times 10^9$  kg      **B**  $2.1 \times 10^{32}$  kg      **C**  $8.5 \times 10^{32}$  kg      **D**  $8.0 \times 10^{39}$  kg