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A binary star consists of two stars A and B. The two stars may be considered to be isolated in space. The centre of the two stars are separated by a constant distance *d*.

Star A, of mass M_A has a smaller mass than star B of mass M_B, such that $\frac{M_A}{M_B} = 0.2$. The stars are in circular orbits about each other such that the centre of their orbits is at a fixed point with orbital period *T*.

Which row is correct?

	orbital radius of star A	magnitude of gravitational force on star B
A	$\frac{5}{6}d$	$\frac{10\pi^2 dM_A}{3T^2}$
B	$\frac{5}{6}d$	$\frac{10\pi^2 dM_B}{3T^2}$

C

d

$$\frac{10\pi^2 dM_A}{3T^2}$$

D

d

$$\frac{10\pi^2 dM_B}{3T^2}$$