

- 13** The Moon is held in a circular orbit by the gravitational force provided by the Earth. The strength of this gravitational force is $2.1 \times 10^{20} \text{ N}$, and the radius of the circular orbit is $3.8 \times 10^5 \text{ km}$.

What is the total work done on the Moon by the Earth's gravitational force during one complete orbit?

- A** 0 J **B** $8.0 \times 10^{25} \text{ J}$ **C** $5.0 \times 10^{26} \text{ J}$ **D** $5.0 \times 10^{29} \text{ J}$