

**13** A black hole has a mass of  $2.0 \times 10^{31} \text{ kg}$ .

What would be the gravitational field strength due to this black hole at a distance of 150 million km?

**A**  $5.9 \times 10^{-2} \text{ N kg}^{-1}$

**B**  $5.9 \times 10^4 \text{ N kg}^{-1}$

**C**  $8.8 \times 10^9 \text{ N kg}^{-1}$

**D**  $8.8 \times 10^{12} \text{ N kg}^{-1}$

