Black Hole Arithmetic Practice

①

Determine the Schwarzchild radius (r_{sch})of a stellar black hole
with a mass of $10m_{\odot}$

Answer:

②

Determine the mass (in solar masses) of a black hole with a Schwarzchild radius of 16 million Km

Answer:

③

Determine the mass (in solar masses) of a supermassive black hole
that is orbited by a star with a mean/average orbital radius of 1500 AU's
and a period of 12 Earth Years

Answer: