

EXPLAIN HOW THE GRAVITATIONAL FORCE EQUATION JUSTIFIES FOR THE LARGE FORCE EXERTED BY BLACK HOLES.

- The gravitational force equation is $F_g = Gm_1m_2/d^2$.
- F_g and m are directly proportional, meaning the greater the mass the stronger the force.
- F_g and d are inversely proportional, meaning the smaller the volume (smaller "d" (distance)) the greater the force.
- Black Holes are compact objects, which possess both a great mass and a small volume.
- These two characteristics make the force of Black Holes very very strong.