

Preflight 24.1

$$r_n = \left(\frac{h}{2\pi}\right)^2 \frac{1}{mke^2} \frac{n^2}{Z} = \underbrace{(0.0529nm)}_{\text{Bohr radius}} \frac{n^2}{Z}$$

If the electron in the hydrogen atom was 207 times heavier (a muon), the Bohr radius would be

- 1) 207 Times Larger
- 2) Same Size
- 3) 207 Times Smaller