Chapter 1 Problem 11 [†]

Given
$D_h = 0.1\ nm = 1.0 \times 10^{-10}\ m$
$D_p = 1\ fm = 1.0 \times 10^{-15}\ m$

Solution
How much bigger is the hydrogen atom than the proton?

Divide the hydrogen atom size by the proton size to give

$$\frac{D_h}{D_p} = \frac{1.0 \times 10^{-10}\ m}{1.0 \times 10^{-15}\ m} = 10^5$$

The hydrogen atom is 100,000 times larger than the proton.

[†]Problem from Essential University Physics, Wolfson