Problem 1.11

Neptunium. In the fall of 2002, a group of scientists at Los Alamos National Laboratory determined that the critical mass of neptunium-237 is about 60 kg. The critical mass of a fissionable material is the minimum amount that must be brought together to start a chain reaction. This element has a density of $19.5 \text{ g/cm}^3$.

Part A
What would be the radius of a sphere of this material that has a critical mass?

ANSWER: $Answer not displayed \text{ cm}$