

2.5 Assume a cell phone contains 50 million transistors. How big would such a cell phone be if the phone used vacuum tubes instead of transistors, assuming a vacuum tube has an volume of 1 cubic inch?

50,000,000 transistors \* 1 in<sup>3</sup>/transistor = 50,000,000 in<sup>3</sup> (nearly 30,000 cubic feet - as large as a house)