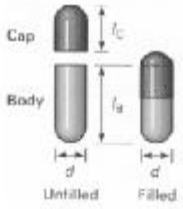
Montgomery is a compounding pharmacist at a pharmaceutical manufacturing plant. He is responsible for ensuring the company's products contain the correct amounts of active and inert ingredients. He is also responsible for selecting the correct capsule sizes for specified dosages. When a compound is prepared, the dosage is determined by the capsule size. The company uses eight capsule sizes. The body length l_B, cap length l_C, and diameter d of the capsules are shown below.



Capsule Size	Body Length (mm)	Cap Length (mm)	Diameter (mm)
000	22.96	13.44	9.52
00	20.50	12.00	8.50
0	18.86	11.04	7.82
1	16.51	9.65	6.86
2	15.35	9.10	6.25
3	13.60	8.13	5.47
4	12.30	7.20	5.10
5	9.84	5.76	4.08

47 The volume of a filled capsule consists of a cylinder of length $(l_B - \frac{1}{2}d)$ and two hemispheres of diameter d. Calculate the volume of a filled number 0 capsule.

48 Montgomery must select a capsule size for production of a 25-milligram dosage of an antidepressant. Each capsule must contain 650 ± 10 mm^3 of the compound. Which capsule should Montgomery select for the production?