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P.195:

## 6.3-C- Volume of a Cylinder

1. Plants and flowers that are used to beautify Montreal's parks are grown in the many greenhouses of the Botanical Gardens. One greenhouse is in the shape of a half-cylinder with radius 5.5 m and height 13 m . If each plant that is grown there requires $0.75 \mathrm{~m}^{3}$ of air, how many plants can be grown in this greenhouse?

2. A circular pool has a radius of 3 m and a height of 1.5 m . The pool is filled with water up to $4 / 5$ of its total capacity. Calculate the number of liters of water in the pool.
3. A small box contains 10 pencils each of which is in the shape of a cylinder with radius 4 mm and length 190 mm . What is the volume of the empty space in the box, in $\mathrm{mm}^{3}$ ?

4. Valerie and Claude just purchased a rectangular-shaped lot measuring 30 m by 50 m . They want to plant a garden so they are going to cover the lot with a layer of topsoil, 10 cm thick. If topsoil costs $\$ 3.75$ per cubic metre, what will the total cost be?
