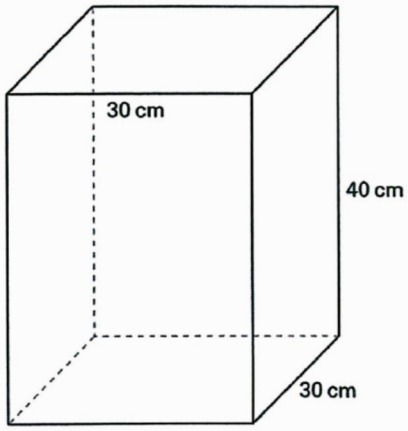
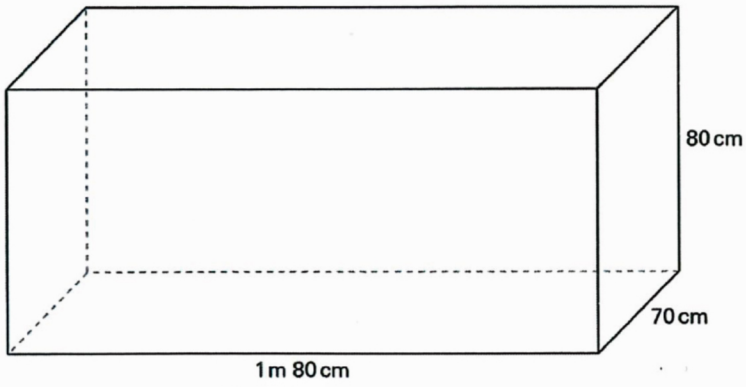
4 A Bestimme die gesamte Oberfläche O und das Volumen V dieser Quader.

Quader 1



Quader 2



= 180 cm

Quader 1

$O = 2 \cdot (30\,cm \cdot 30\,cm + 30\,cm \cdot 40\,cm + 30\,cm \cdot 40\,cm)$

$= 2 \cdot (900\,cm^2 + 1'200\,cm^2 + 1'200\,cm^2)$

$= 2 \cdot 3'300\,cm^2$

$= 6'600\,cm^2 = \underline{66\,dm^2}$

$V = 30\,cm \cdot 30\,cm \cdot 40\,cm = 36'000\,cm^3 = \underline{36\,dm^3}$

Quader 2

$O = 2 \cdot (180\,cm \cdot 70\,cm + 180\,cm \cdot 80\,cm + 70\,cm \cdot 80\,cm)$

$= 2 \cdot (12'600\,cm^2 + 14'400\,cm^2 + 5'600\,cm^2)$

$= 2 \cdot 32'600\,cm^2$

$= 65'200\,cm^2 = \underline{652\,dm^2}$

$V = 180\,cm \cdot 70\,cm \cdot 80\,cm = 1'008'000\,cm^3 = \underline{1'008\,dm^3}$