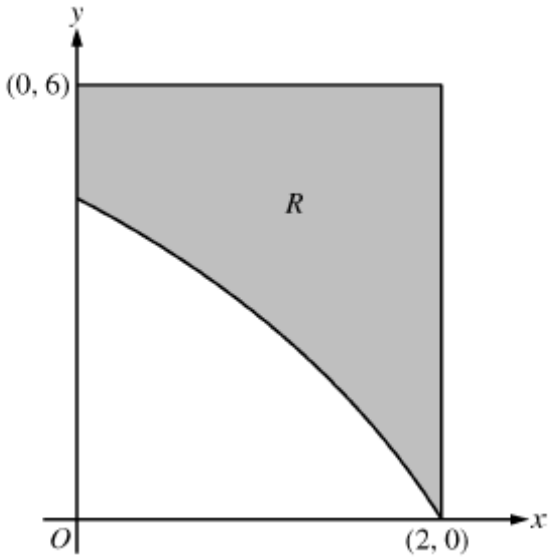
AB/BC 1



(a) Area = $\int_0^2 \left(6 - 4\ln(3-x)\right) dx = \boxed{6.817}$

(b) Volume = $\pi \int_0^2 \left((8 - 4\ln(3-x))^2 - (2)^2\right) dx = \boxed{168.180}$

(c) The cross-section is a square and its area is length of a side squared.

Volume = $\int_0^2 \left(\text{area of cross-section}\right) dx = \int_0^2 \left(6 - 4\ln(3-x)\right)^2 dx = \boxed{26.267}$