XVII a

D: $y = x$, $y = 2 - x^2$

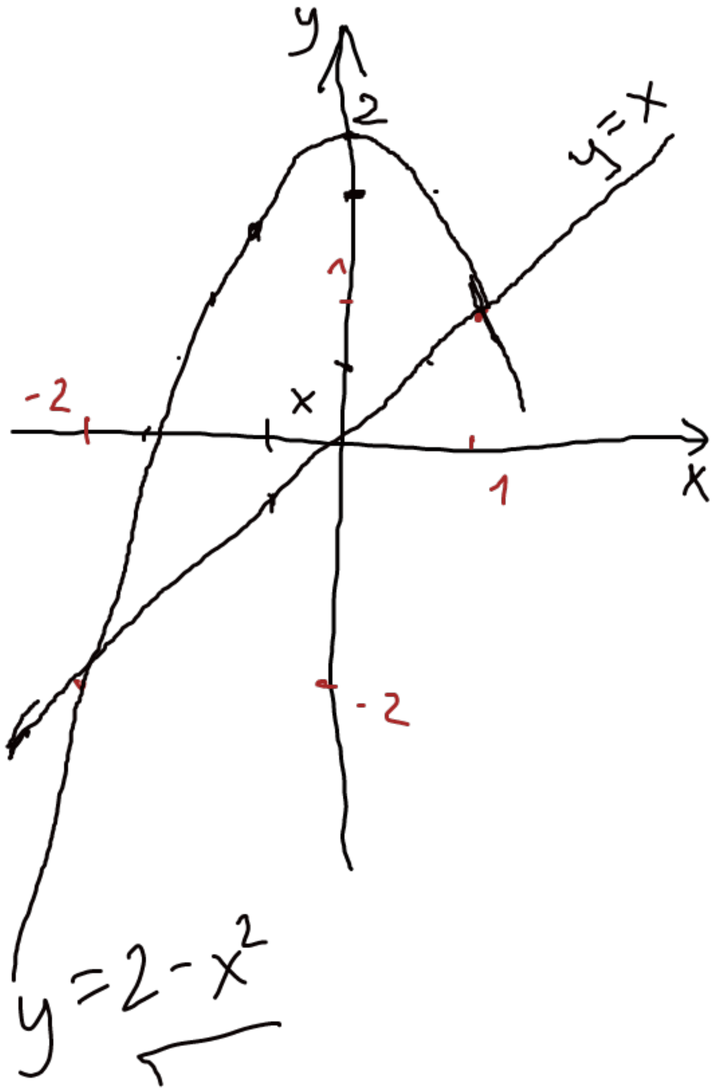
p. preseka: $x = 2 - x^2$

$x^2 + x - 2 = 0$

$(x+2)(x-1) = 0$

$\begin{cases} x = -2 \\ y = -2 \end{cases} \vee \begin{cases} x = 1 \\ y = 1 \end{cases}$

$$\iint_D xy^2 \, dx\,dy =$$

$$= \int_{-2}^{1} dx \int_{x}^{2-x^2} xy^2 \, dy = \int_{-2}^{1} dx \left(x \frac{y^3}{3} \right) \Bigg|_{y=x}^{y=2-x^2} =$$

$$= \int_{-2}^{1} \left(x \frac{(2-x^2)^3}{3} - x \frac{x^3}{3} \right) dx = \dots$$