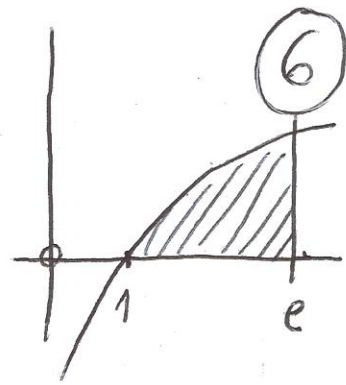
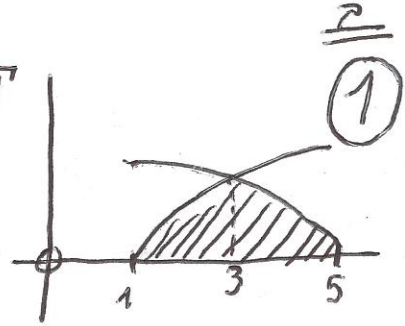


2

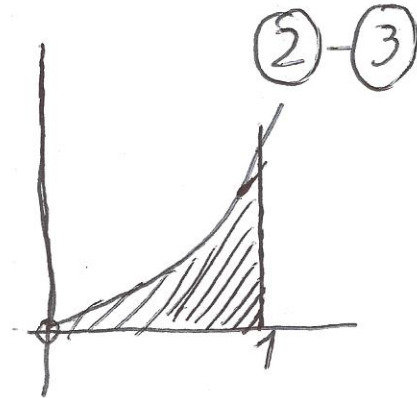
$\therefore x \text{ נב } , x=e , y=\ln x$
 $S = \int_1^e \ln x dx = 1$



$\therefore x \text{ נב } , x=5 , y=\sqrt{5-x} , y=\sqrt{x-1}$
 $V_x = \pi \int_1^3 (\sqrt{x-1})^2 dx + \pi \int_3^5 (\sqrt{5-x})^2 dx = 4\pi$



$\therefore y \text{ נב } , x=1 , y=x\sqrt{x}$
 $V_x = \pi \int_0^1 (x\sqrt{x})^2 dx = \frac{\pi}{4}$
 $V_y = 2\pi \int_0^1 x \cdot (x\sqrt{x}) dx = \frac{4\pi}{7}$



$(3 \text{ ש"ק } , 6 \text{ ש"ק } (C)) \quad 0 \leq x \leq \frac{\pi}{3} , y=\sin 2x , y=\sin x$ (4)-(5)
 $V_x = \pi \int_0^{\pi/3} \sin^2 2x dx - \pi \int_0^{\pi/3} \sin^2 x dx = \frac{\sqrt{27}\pi}{16}$ $\therefore x \text{ נב } , x=1$
 $V_y = 2\pi \int_0^{\pi/3} x \cdot \sin 2x dx - 2\pi \int_0^{\pi/3} x \cdot \sin x dx = \frac{(2\pi - \sqrt{27})\pi}{4}$ $\therefore y \text{ נב } , x=1$

(6)-(7)

$y=\sqrt{x} , y=x^2$
 $V_x = \pi \int_0^1 (\sqrt{x})^2 dx - \pi \int_0^1 (x^2)^2 dx = \frac{3\pi}{10}$ $\therefore x \text{ נב } , x=1$

$V_y = 2\pi \int_0^1 x\sqrt{x} dx - 2\pi \int_0^1 x \cdot x^2 dx = \frac{3\pi}{10}$ $\therefore y \text{ נב } , x=1$

