FUNCION $y = f(x)$ y el eje OX



$A = \int_a^b f(x)\,dx$ $A = -\int_a^b f(x)\,dx$ $A = \int_a^c f(x)\,dx - \int_c^b f(x)\,dx$

PRACTICA [1] $\begin{cases} y = f(x) \\ y = 0 \end{cases}$

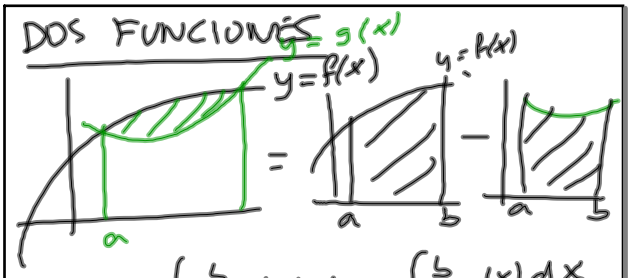
[2] Rep. $f(x)$

[3] Plantea la integral

[4] Resuelve la integral

mar 26-13:05

DOS FUNCIONES



$$A = \int_a^b f(x)\,dx - \int_a^b g(x)\,dx$$

$$= \int_a^b [f(x) - g(x)]\,dx$$

Arriba — Debajo

PRACTICA [1] $\begin{cases} y = f(x) \\ y = g(x) \end{cases}$

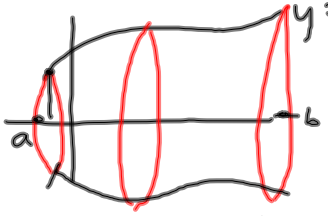
[2] Rep. $y = f(x)$ | $y = g(x)$

[3] Plantea la integral

[4] Resuelve la integral

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VOLUMEN AL GIRAR SOLO OX



$\pi r^2 = \pi f(x)^2$

$$V = \int_a^b \pi f(x)^2\,dx$$

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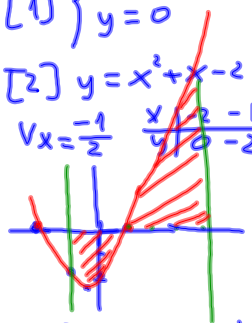
Area $y = x^2 + x - 2$, OX, abscisas -1 y 4

[1] $\begin{cases} y = x^2 + x - 2 \\ y = 0 \end{cases}$ $x = \frac{-1 \pm 3}{2} < \begin{matrix} 1 \\ -2 \end{matrix}$ $(1,0)$ $(-2,0)$

[2] $y = x^2 + x - 2$

Vx = $\frac{-1}{2}$

x	-2	-1	-½	0	1
y	0	-2	-2'25	-2	0



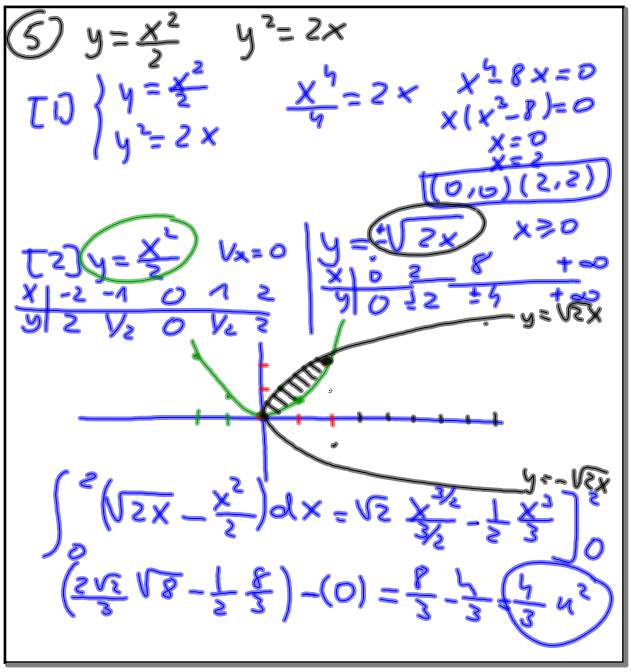
$$A = -\int_{-1}^{1} (x^2 + x - 2)\,dx + \int_{1}^{4} (x^2 + x - 2)\,dx$$

$$-\left[\frac{x^3}{3} + \frac{x^2}{2} - 2x\right]_{-1}^{1} + \left[\frac{x^3}{3} + \frac{x^2}{2} - 2x\right]_{1}^{4}$$

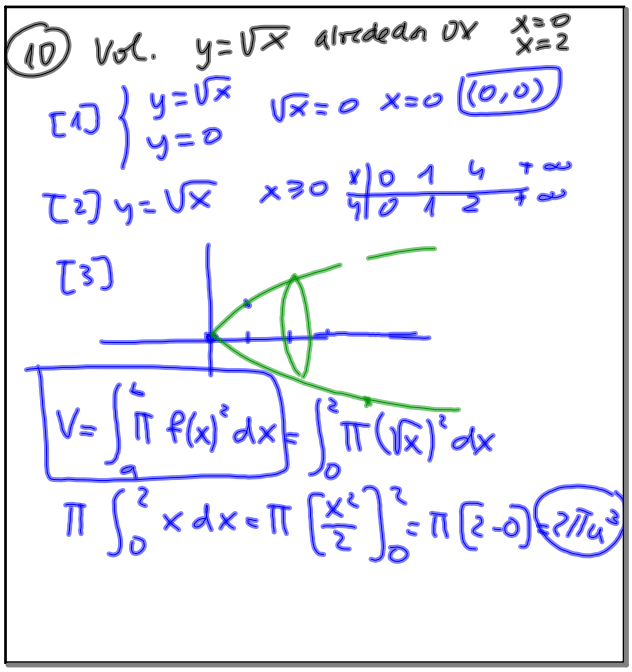
$$-\left[\left(\frac{1}{3} + \frac{1}{2} - 2\right) - \left(\frac{-1}{3} + \frac{1}{2} + 2\right)\right] + \left[\left(\frac{64}{3} + 8 - 8\right) - \left(\frac{1}{3} + \frac{1}{2} - 2\right)\right]$$

$25'\overline{83}$

mar 26-13:14



mar 26-13:21



mar 26-13:26