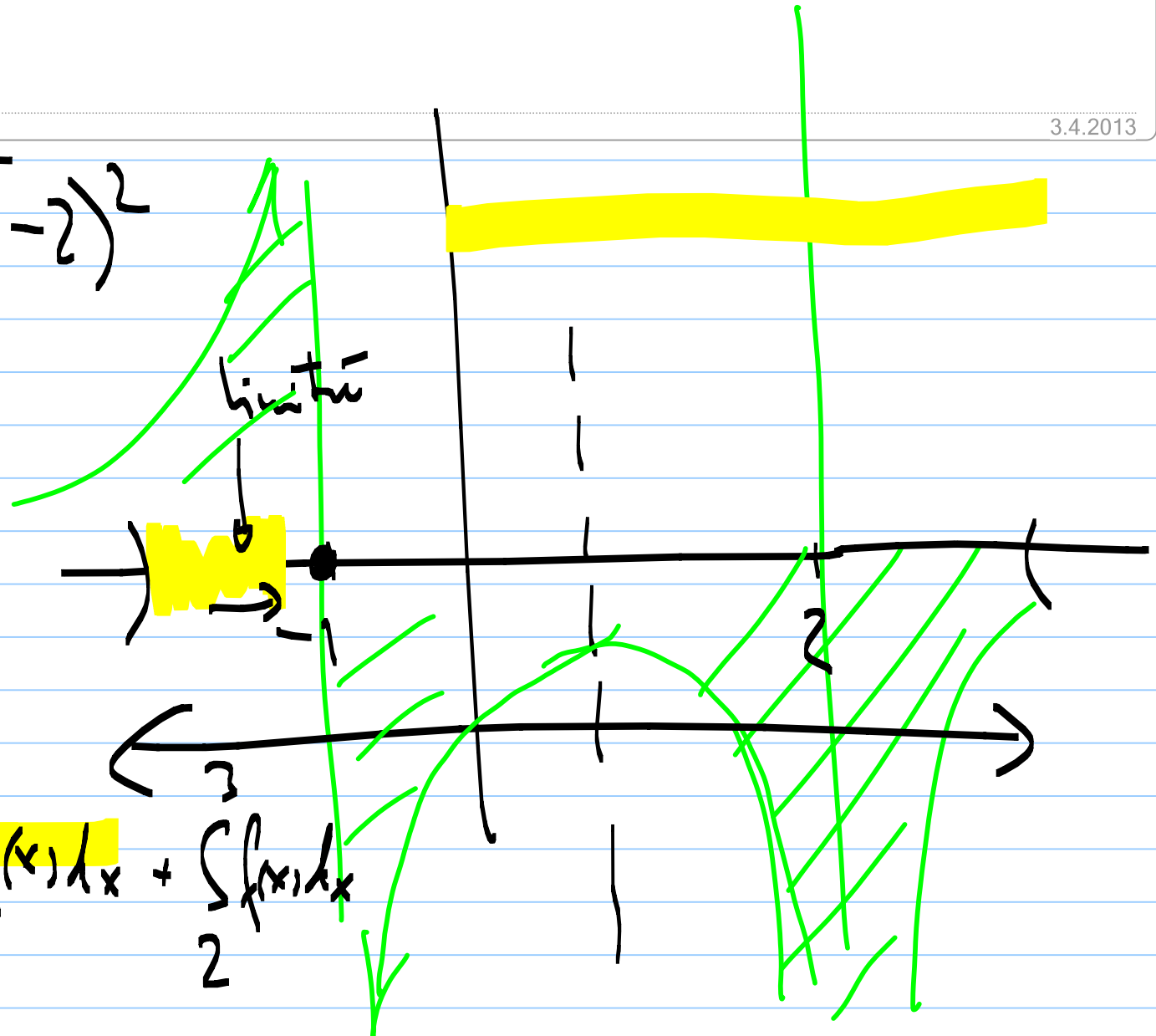


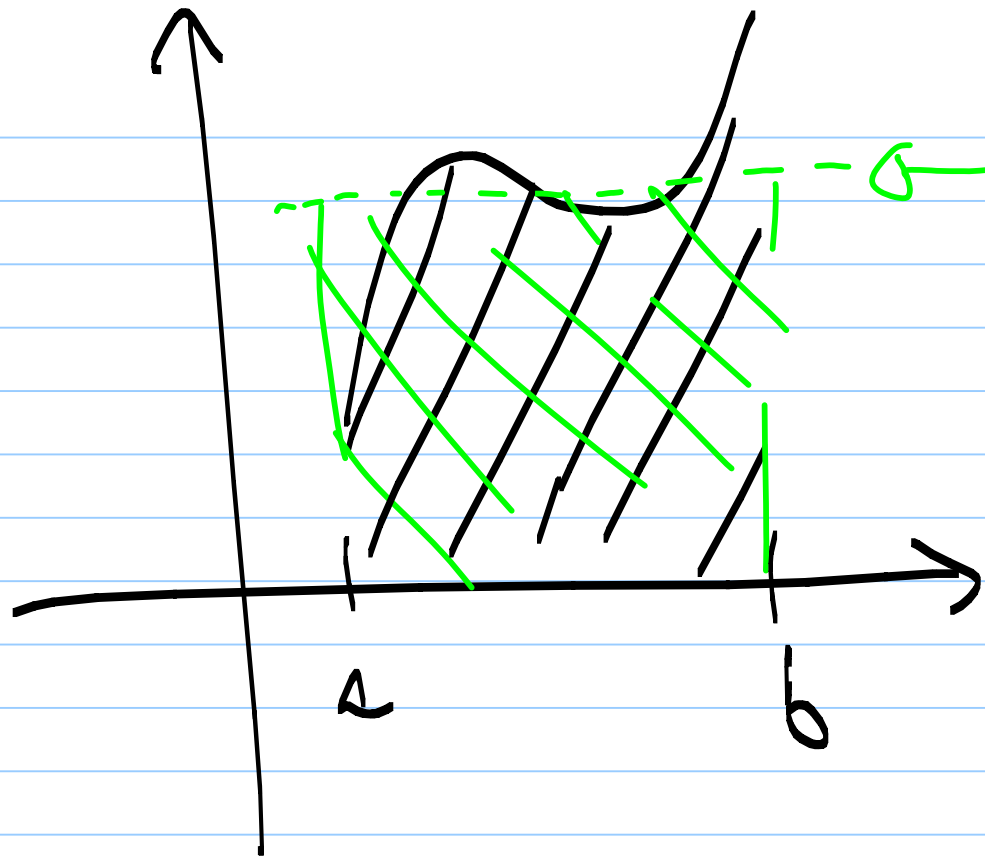
$$f(x) = \frac{x-5}{(x+1)(x-2)^2}$$

$$\int f(x) dx$$

$$\int_{-2}^1 f(x) dx + \int_{-1}^2 f(x) dx + \int_2^{\infty} f(x) dx$$



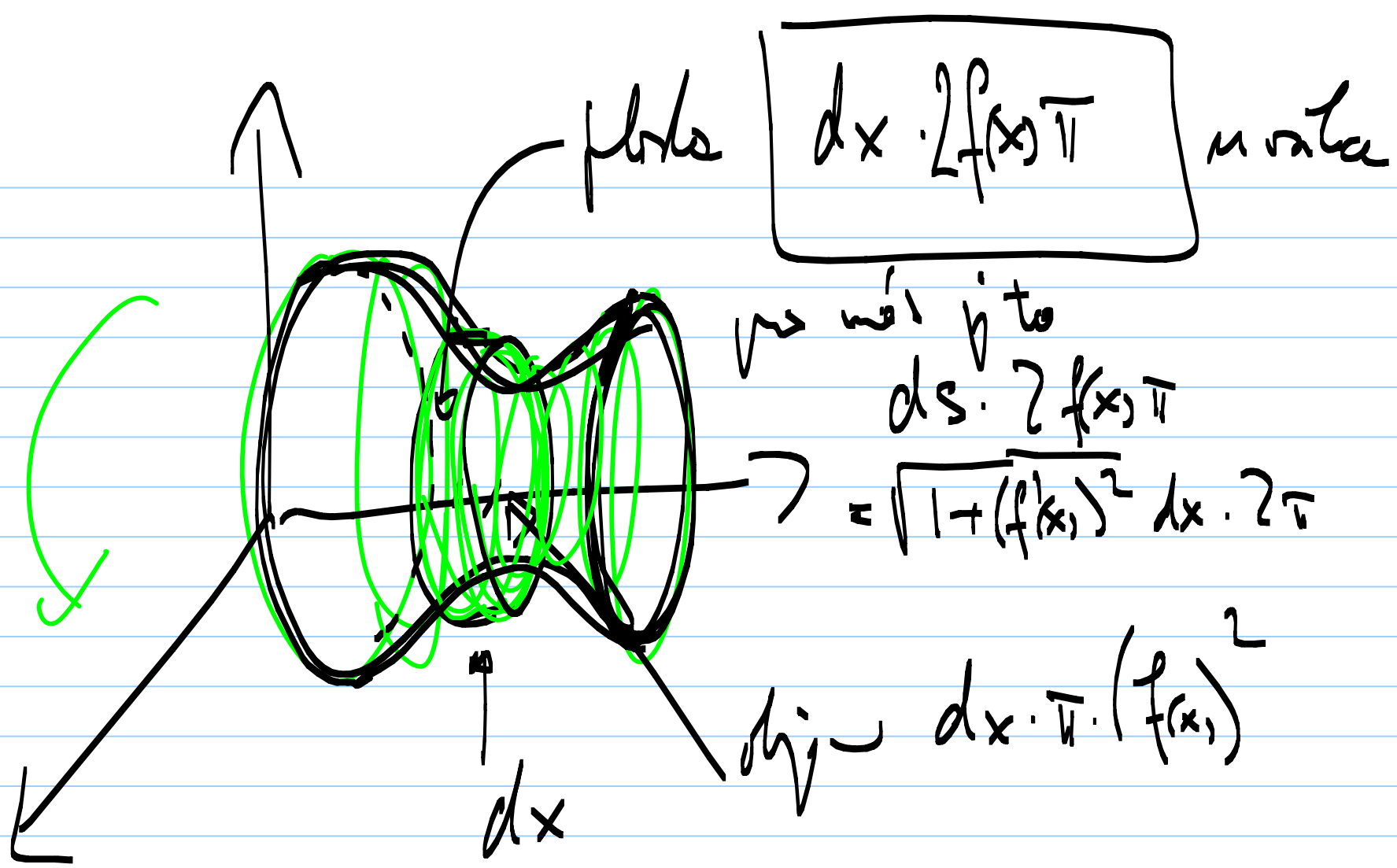
$$\int \frac{x dx}{(x^2 + a^2)} = \left| \begin{array}{l} x^2 + a^2 = t \\ 2x dx = dt \end{array} \right| = \frac{1}{2} \int \frac{dt}{t^2}$$
$$= -\frac{1}{2} \cdot \frac{1}{t}$$

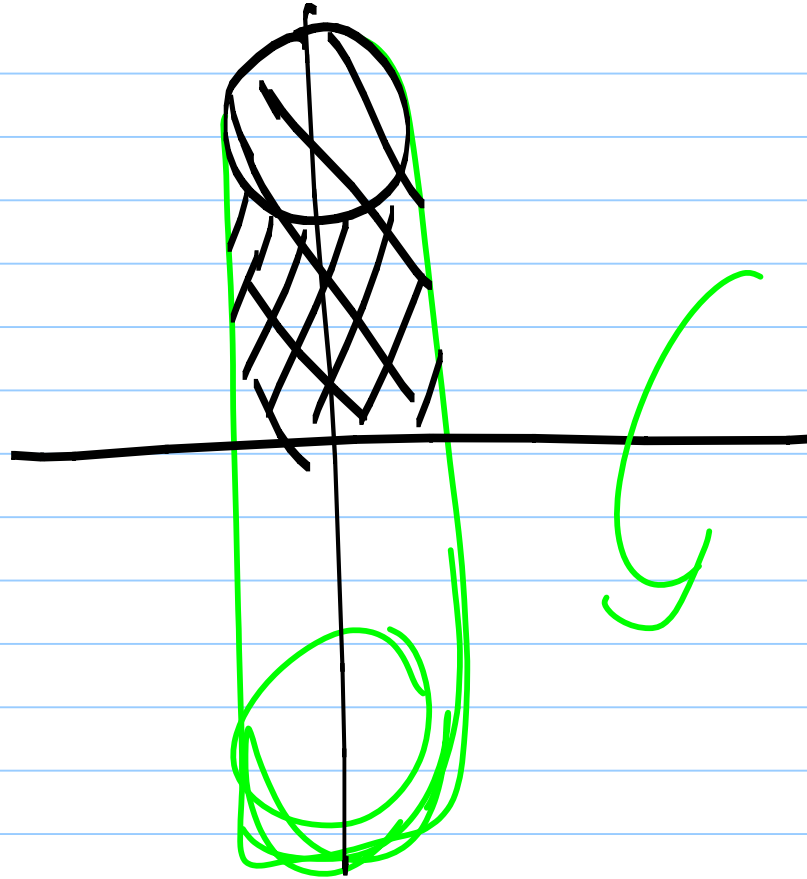


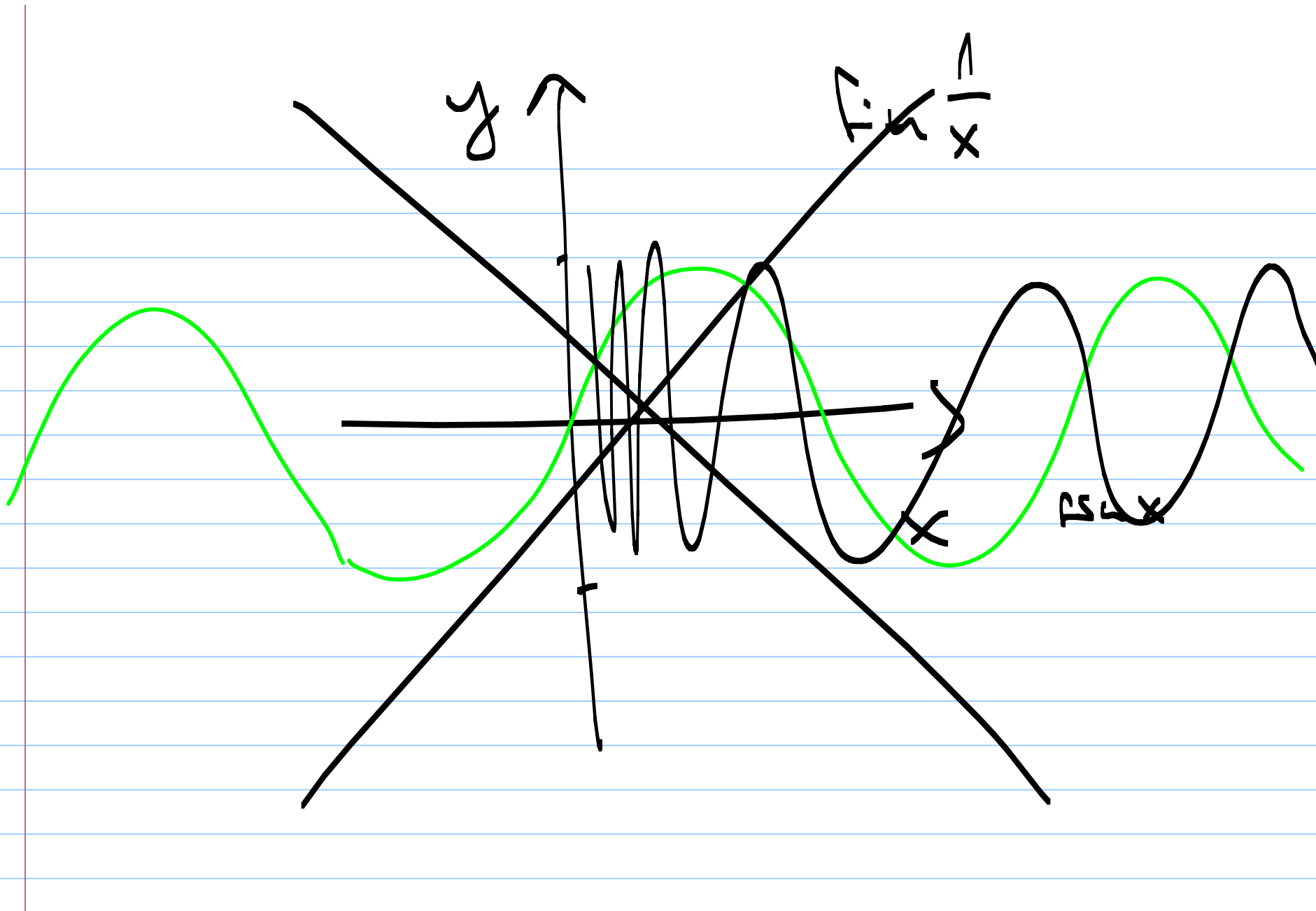
Strecke  
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=

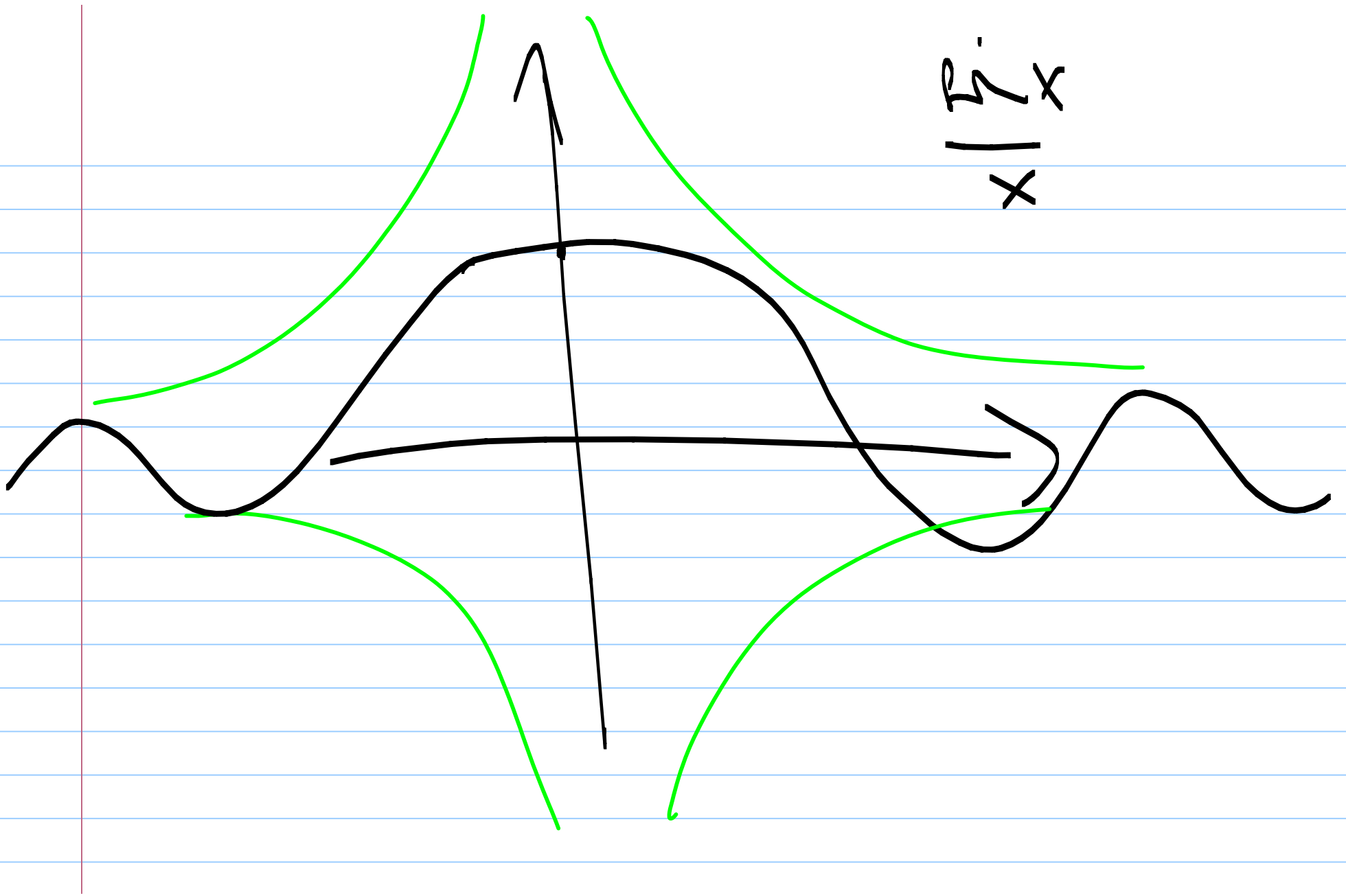
$$2 \int_{-r}^r \sqrt{r^2 - x^2} dx = \left| \begin{array}{l} x = r \cdot \sin t \\ dx = r \cdot \cos t dt \end{array} \right|_{-\pi/2}^{\pi/2} =$$

$$= 2 \int_{-\pi/2}^{\pi/2} \sqrt{r^2 - r^2 \sin^2 t} \cdot \cos t dt = 2r \int_{-\pi/2}^{\pi/2} \cos t \cdot \cos t dt$$









x  
|  
x