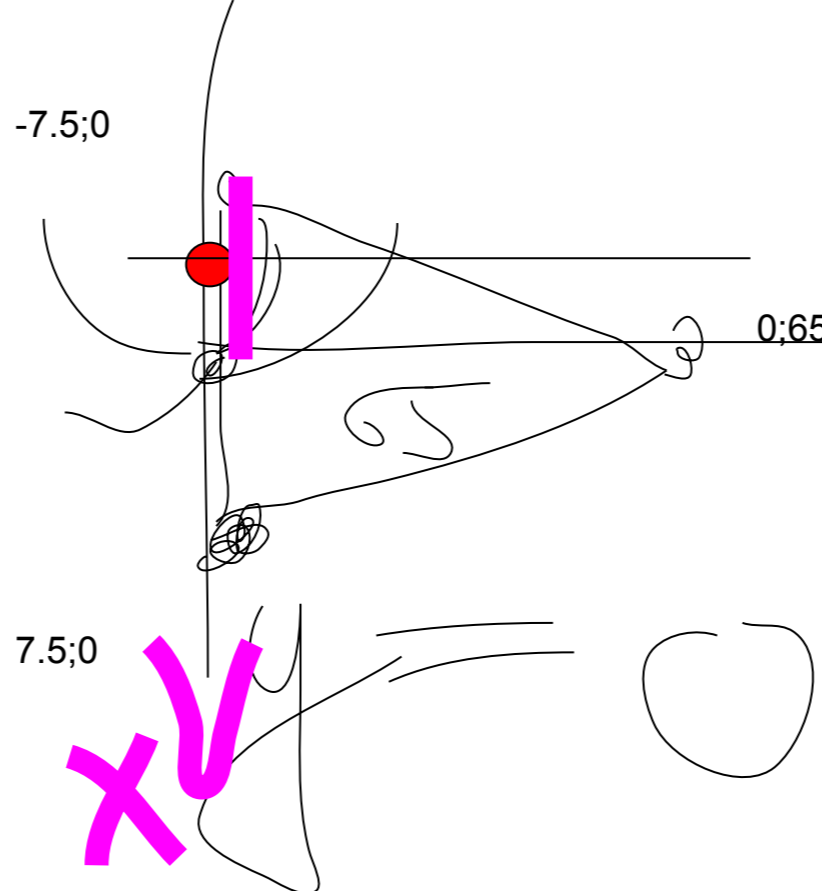


$$s(\sigma) = \iint_D \sqrt{1 + \left(\frac{\partial f}{\partial x}\right)^2 + \left(\frac{\partial f}{\partial y}\right)^2} dx dy.$$

$$z = f(x, y) = x^2/42 + y^2/42$$

$$df/dx = x/21$$

$$df/dy = y/21$$



$$-7.5 \leq x \leq 0$$

$$0 \leq y \leq 65(x+7.5) / 7.5$$

$$p \leq y \leq q$$

$$\begin{aligned} x-x_1 / x_2-x_1 &= y-y_1 / y_2-y_1 \\ x+7.5 / 0+7.5 &= y-0 / 65-0 \\ (x+7.5) / 7.5 &= y / 65 \\ y &= 65(x+7.5) / 7.5 \\ x-7.5 / -7.5 &= y / 65 \\ y &= 65(x-7.5) / -7.5 \end{aligned}$$

урав прям на  
плоскости

$$\frac{1}{2} \sqrt{x^2 + 5} x + \frac{5}{2} \log \left( \sqrt{\frac{x^2}{5} + 1} + \frac{x}{\sqrt{5}} \right)$$

$$S \int \sqrt{1 + x^2/21^2 + y^2/21^2} dx dy =$$

$$= S dx \int [p; q] \sqrt{1 + x^2/21^2 + y^2/21^2} dy =$$

$$= S dx \left[ \frac{1}{2} (y \sqrt{y^2 + (1 + x^2/21^2)}) + (1 + x^2/21^2) / 2 \right]$$

$$\log \left( \sqrt{y^2 / (1 + x^2/21^2) + 1} + y / \sqrt{1 + x^2/21^2} \right) \Big| [p; q] =$$

$$= \frac{1}{2} \left( q \sqrt{q^2 + (1 + x^2/21^2)} + (1 + x^2/21^2) / 2 \right)$$

$$\log \left( \sqrt{q^2 / (1 + x^2/21^2) + 1} + q / \sqrt{1 + x^2/21^2} \right) - \left[ [p; q] \right]$$

$$S \int \sqrt{5 + y^2} dy = S \int \sqrt{5 + y^2} dy$$