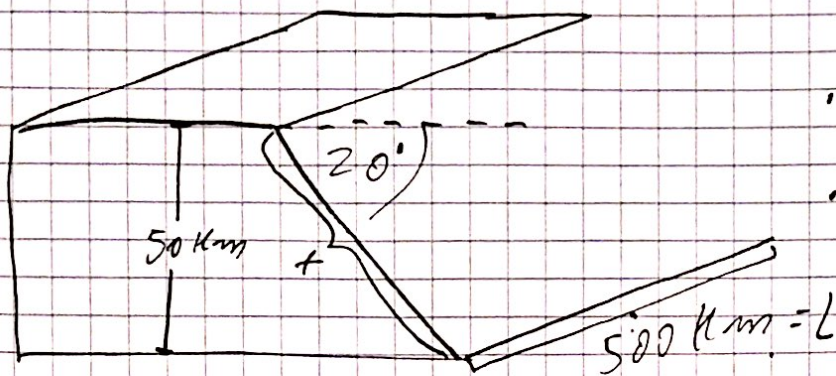


9.1)



$$\langle D \rangle = L \cdot 10^{-4}$$

$$\mu = 3 \cdot 10^{11} [\text{dyn cm}^{-2}]$$

$$M_0 = \mu \cdot D \cdot A$$

$$M_w = \frac{2}{3} (\log_{10} M_0 - 9.1)$$

$$\rightarrow A: \Delta \text{len}(20^\circ) = \frac{50 \text{ km}}{\pi}$$

$$\pi = \frac{50 \text{ km}}{\Delta \text{len}(20^\circ)} = 146,2 \text{ km} =$$

$$\Rightarrow A = 500 \text{ km} \cdot 146,2 \text{ km} = 73.100 \text{ km}^2$$

$$= 73,1 \cdot 10^3 \cdot (10^3)^2 \text{ m}^2 = \underline{73,1 \cdot 10^9 \text{ m}^2}$$

$$\rightarrow D: \langle D \rangle = L \cdot 10^{-4} = 500 \text{ km} \cdot 10^{-4}$$

$$= 5 \cdot 10^2 \cdot 10^3 \text{ m} \cdot 10^{-4} = \underline{50 \text{ m}}$$

$$\rightarrow \mu: 1 \text{ dyna} = 10^{-5} \text{ N}$$

$$\mu = 3 \cdot 10^{11} \left[ \frac{\text{dyna}}{\text{cm}^2} \right] = 3 \cdot 10^{11} \left[ \frac{10^{-5} \text{ N}}{10^{-4} \text{ m}^2} \right]$$

$$= 3 \cdot 10^{11} \cdot 10^{-1} \frac{\text{N}}{\text{m}^2} = \underline{3 \cdot 10^{10} \frac{\text{N}}{\text{m}^2}}$$

$$\Rightarrow M_0 = 3 \cdot 10^{10} \frac{\text{N}}{\text{m}^2} \cdot 50 \text{ m} \cdot 73,1 \cdot 10^9 \text{ m}^2$$

$$= 10965 \cdot 10^{19} \text{ Nm} \approx \underline{1,1 \cdot 10^{23} \text{ Nm}}$$

$$\Rightarrow M_w = \frac{2}{3} (\log_{10}(1,1 \cdot 10^{23}) - 9.1) = 9,29 \approx \underline{9,3}$$

$$b) M_w = 5 = \frac{2}{3} (\log_{10} M_{05} - 9,1)$$

$$\Rightarrow 5 \cdot \frac{3}{2} + 9,1 = \log_{10}(M_{05}) = 16,6$$

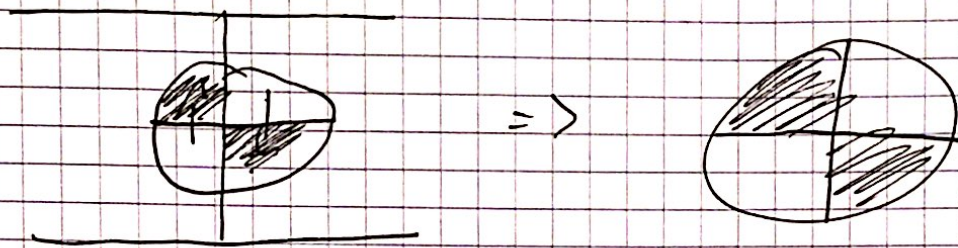
$$\Rightarrow 10^{16,6} = M_{05} = 3,98 \cdot 10^{16}$$

$$\Rightarrow \frac{M_{09,3}}{M_{05}} = \frac{1,1 \cdot 10^{23}}{3,98 \cdot 10^{16}} = 2.763.819,095$$

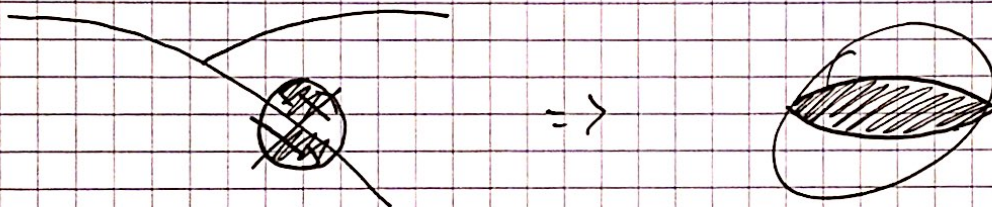
$$= 2,76 \cdot 10^6 \text{ Nuvinsoc.}$$

1. - Falda torn Andrii  $\Rightarrow$  Falda transformante

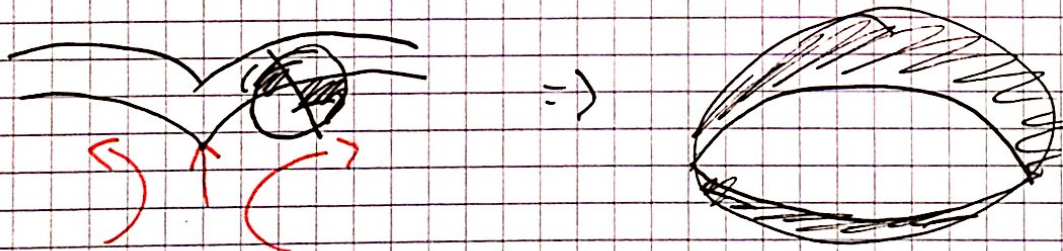
Modelo geológico.



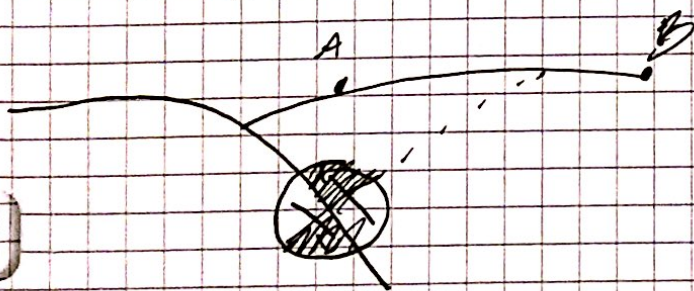
2. - Subduccion placa de Nazca  $\Rightarrow$  Falda Inversa



3. - Dorsal  $\Rightarrow$  Falda normal



con interesante:



Estacion Sismologica:

$\rightarrow$  A:

$\rightarrow$  B: