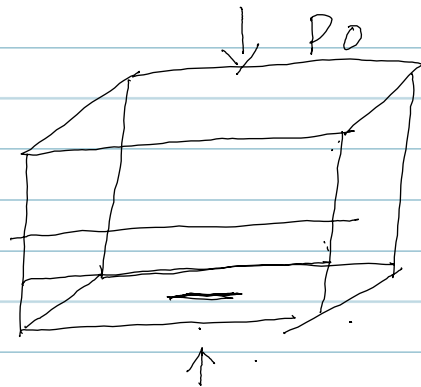


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一水壩內的水深100呎，若在水壩體的最底部出現一條長10呎寬1呎的裂縫，則有否可能單以手掌之力，擋住水的滲漏？



$$P = P_0 + dgh$$

$$P = \frac{F_{\perp}}{A}$$

$$P_{in} = P_{out} + dgh$$

$$\begin{aligned} \Delta P &= dgh = 1000 \frac{\text{kg}}{\text{m}^3} \times 9.8 \frac{\text{m}}{\text{s}^2} \times 100 \text{ m} \\ &= 9.8 \times 10^5 \frac{\text{N}}{\text{m}^2} \end{aligned}$$

$$F = \Delta P A$$

$$= 9.8 \times 10^5 \frac{\text{N}}{\text{m}^2} \times 10 \times 1 \times 10^{-4}$$

$$= 980 \text{ N} \approx 100 \text{ 公斤重}$$