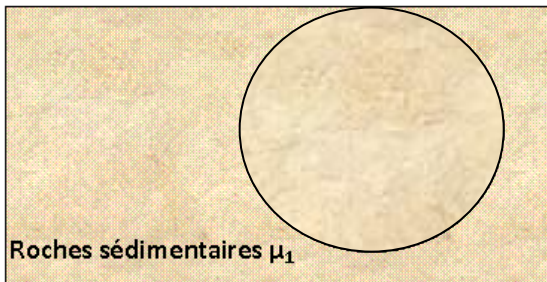


Gravimétrie

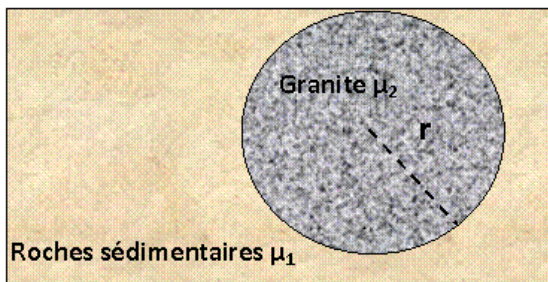
Sol



$$g = G \mu_1 \frac{4}{3} \pi r^3 / r^2$$

$$g = G \mu_1 \frac{4}{3} \pi r$$

Sol



$$g' = G \mu_2 \frac{4}{3} \pi r^3 / r^2$$

$$g' = G \mu_2 \frac{4}{3} \pi r$$

$$\Delta g = g' - g = G (\mu_2 - \mu_1) \frac{4}{3} \pi r$$

$$\Delta g = g' - g = 6,674 \times 10^{-11} (2,7 - 1,3) \times \frac{4}{3} \times \pi \times 5 \times 10^3 \approx 2 \times 10^{-6} \text{ m s}^{-2}$$

$$\Delta g / g = 2 \times 10^{-6} / 9,8 \approx 2 \times 10^{-7} \gg 10^{-9}$$

(on peut mesurer g avec une précision de $10^{-9} \times g$)