

CALCUL ÉCHELLE

$$\text{Échelle} = \frac{\text{Distance Mesurée sur le Papier}}{\text{Distance Réelle}}$$

$$\text{Éch.} = \frac{\text{DMP}}{\text{DR}}$$

Rappel tableau de conversion :

km	hm	dam	m	dm	cm	mm

CAS 1/3

$$\text{DMP} = 3 \text{ cm}$$

$$\text{DR} = 30 \text{ m}$$

$$\text{Éch.} = ?$$

$$\text{Éch.} = \frac{3 \text{ cm}}{30 \text{ m}} = \frac{3 \text{ cm}}{3\,000 \text{ cm}} = \frac{3}{3\,000} = \frac{\cancel{3} \times 1}{\cancel{3} \times 1\,000} = \frac{1}{1\,000} = 0,001$$

CAS 2/3

$$\text{DMP} = 3 \text{ cm}$$

$$\text{DR} = ?$$

$$\text{Éch.} = 0,001$$

$$0,001 = \frac{3 \text{ cm}}{\text{DR}} \Leftrightarrow \frac{0,001}{1} = \frac{3 \text{ cm}}{\text{DR}} \Leftrightarrow 0,001 \times \text{DR} = 1 \times 3 \text{ cm}$$

$$0,001 \times \text{DR} = 3 \text{ cm} \Leftrightarrow \text{DR} = \frac{3 \text{ cm}}{0,001} = 3\,000 \text{ cm} = 30 \text{ m}$$

CAS 3/3

$$\text{DMP} = ?$$

$$\text{DR} = 30 \text{ m}$$

$$\text{Éch.} = 0,001$$

$$0,001 = \frac{\text{DMP}}{30 \text{ m}} \Leftrightarrow \frac{0,001}{1} = \frac{\text{DMP}}{30 \text{ m}} \Leftrightarrow 0,001 \times 30 \text{ m} = 1 \times \text{DMP}$$

$$0,001 \times 30 \text{ m} = \text{DMP} \Leftrightarrow 0,03 \text{ m} = \text{DMP} \Leftrightarrow 3 \text{ cm} = \text{DMP}$$