Question Q1.2

A guidebook describes the rate of climb of a mountain trail as 120 meters per kilometer. How can you express this as a number with no units?

Solution

Use dimensional analysis.

$$120 \; \frac{m}{km} = 120 \; \frac{\cancel{m}}{\cancel{km}} \times \frac{1 \; \cancel{km}}{1000 \; \cancel{m}} = 0.120$$