Question

Convert 2.4cm/year to km/millions years

Solution.

First convert 1 centimeter to kilometers

$$1 \text{ cm} = 10^{-2}\text{m} = 10^{-5}\text{km}$$

Now convert 1 year to millions of years

$$1 \text{ year} = 10^{-6}\text{millions years}$$

Substitute the converted values into 2.4cm/year

$$2.4 \ \frac{\text{cm}}{\text{year}} = 2.4 \ \left(\frac{10^{-5}\text{km}}{10^{-6}\text{millions years}}\right) = 2.4 \cdot 10 \frac{\text{km}}{\text{millions years}} = 24 \frac{\text{km}}{\text{millions years}}$$

Answer.

$$2.4 \ \frac{\text{cm}}{\text{year}} = 24 \frac{\text{km}}{\text{millions years}}$$

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