Common conversion mistakes and how to avoid them

Engineering Fluid Mechanics

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578 km

1600 m = 1.6 km = 1 mile

$578\text{ km} \cdot 1.6 = 924.8\text{ miles}$

$$578\text{ km} \cdot \left(\frac{1\text{ mile}}{1.6\text{ km}}\right) = 361.25\text{ miles}$$

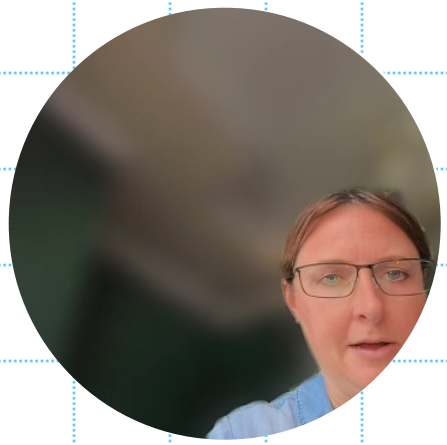
Common conversion mistake: not using the units

$25,467\ ft^3$

$3.28\ ft = 1\ m$

$$25,467\ ft^3 \cdot \left(\frac{1\ m^3}{3.28\ ft^3}\right)^3 = 721.6993\ m^3$$

Common conversion mistake: forgetting math rules



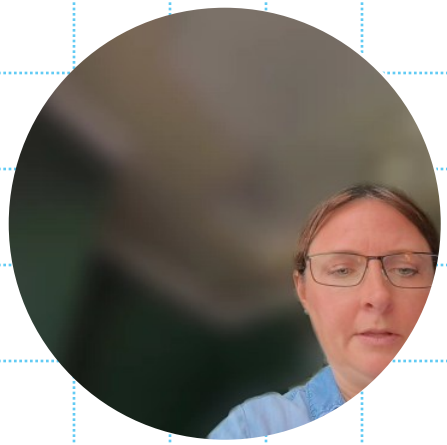
$1\,m = 100\,cm$

$25\,cm^2$

$$25\,cm^2 \left(\frac{1\,m^2}{100\,cm^2}\right)^2 = 0.25\,m^2$$

$$25\,cm^2 \left(\frac{1\,m^2}{10{,}000\,cm^2}\right) = 0.0025\,m^2$$

Common conversion mistake: forgetting math rules



$$25\ cm^2 \cdot \left(\frac{1\ m}{100\ cm}\right)^2 =$$

$$(0.25\ cm)^2 = 0.0625\ m^2$$

$$25\ cm^2 \cdot \left(\frac{1\ m^2}{10{,}000\ cm^2}\right) = 0.0025\ m^2$$

Common conversion mistake: forgetting math rules

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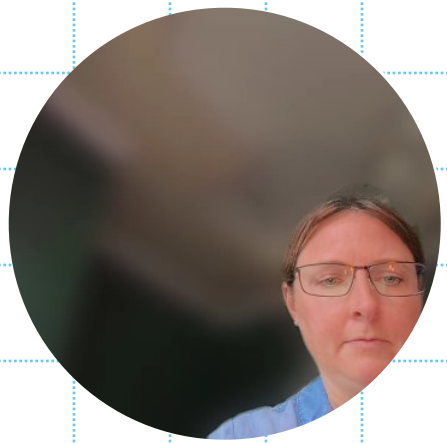
Acknowledgement

This material is based upon work partially supported by the National Science Foundation under Grant# 2335802. Any opinions, findings, and conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



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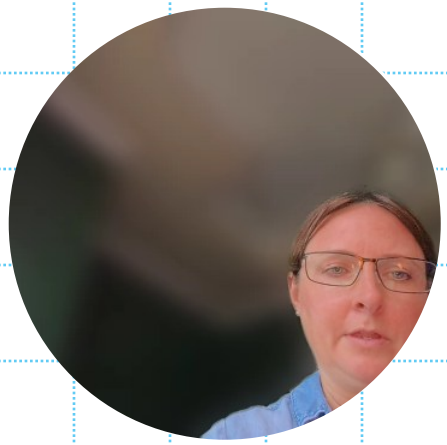

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THE END

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