Physics Thinking

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Preface

Consider this as an option for developing (and publishing?) the book.

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1 Introduction

This is a book created from markdown and executable code.

Table 1.1: SI units

Base Quantity	Base Unit	Symbol
length	meter	m
time	second	s
mass	kilogram	kg
electric current	ampere	A
Thermodynamic temperature	Kelvin	K
Amount of substance	mole	mol
Luminous Intensity	candela	cd

Table 1.2: Fundamental Units

length	time	mass	charge	temperature
m	s	kg	C	K

Table 1.3: Combinations

Concept	Units
Force	$kg\ m\ s^{-2} = N$
Energy	$kg\ m^2\ s^{-2} = N\ m = J$
Power	$kg\ m^2\ s^{-3} = J\ s^{-1} = W$
Current	$C\ s^{-1}$

Dimensional analysis: always checking and fudging (?).

Same units go to the same side of the equation!

Vectors vs scalars

Math is a tool, not the be all and end all – don't simply formula fit.

Sensible answers! Check!

We can cite easily as well, see Knuth (1984) for additional discussion of literate programming.

2 Summary

A work in progress.

References

Knuth, Donald E. 1984. "Literate Programming." *Comput. J.* 27 (2): 97–111. https://doi.org/10.1093/comjnl/27.2.97.