

Errata for  
The Feynman Lectures on Physics Volume I  
New Millennium Edition (submitted  
6/19/2020)

The errors in this list appear in *The Feynman Lectures on Physics: New Millennium Edition* and earlier editions; errors validated by Caltech will be corrected in future printings of the *New Millennium Edition* or in future editions.

Errors are listed in the order of their appearance in the book. Each listing consists of the errant text followed by a brief description of the error, followed by corrected text.

last updated: 1/18/2020 12:40

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**I:23-2, par 2**

Now a wonderful feature of an exponential function is that  $d(\hat{x}e^{i\omega t})/dt = i\omega\hat{x}e^{i\omega t}$ .

Change made for clarification and consistency with Feynman's blackboard

Now a wonderful feature of an exponential function  $x = \hat{x}e^{i\omega t}$  is that  $dx/dt = i\omega x$ .

**I:23-2, par 2**

... and so it is very simple to write immediately, by inspection, what the equation is for  $\hat{x}$ : every time we see a differentiation, we simply multiply by  $i\omega$ .

It is  $x$  that when differentiated with respect to time is multiplied by  $i\omega$ , and not  $\hat{x}$ , which has no dependence on time.

... and so it is very simple to write immediately, by inspection, what the equation is for  $x$ : every time we see a differentiation, we simply multiply by  $i\omega$ .

**I:23-6, par 2**

... the second derivative of  $\hat{q}$  is  $(i\omega)^2\hat{q}$ ; the first derivative is  $(i\omega)\hat{q}$ .

It is  $q$  that when differentiated with respect to time is multiplied by  $i\omega$ , and not  $\hat{q}$ , which has no dependence on time.  $q = \hat{q}e^{i\omega t}$ .

... the second derivative of  $q$  is  $(i\omega)^2q$ ; the first derivative is  $(i\omega)q$ .

**I:23-6, par 3**

Thus, since  $\hat{I} = d\hat{q}/dt = i\omega\hat{q}$ , ...

Inaccurate statement.  $\hat{I}$  and  $\hat{q}$  are constants.  $q = \hat{q}e^{i\omega t}$  and  $I = \hat{I}e^{i\omega t}$ .

Thus, since  $I = dq/dt = i\omega q$ , ...