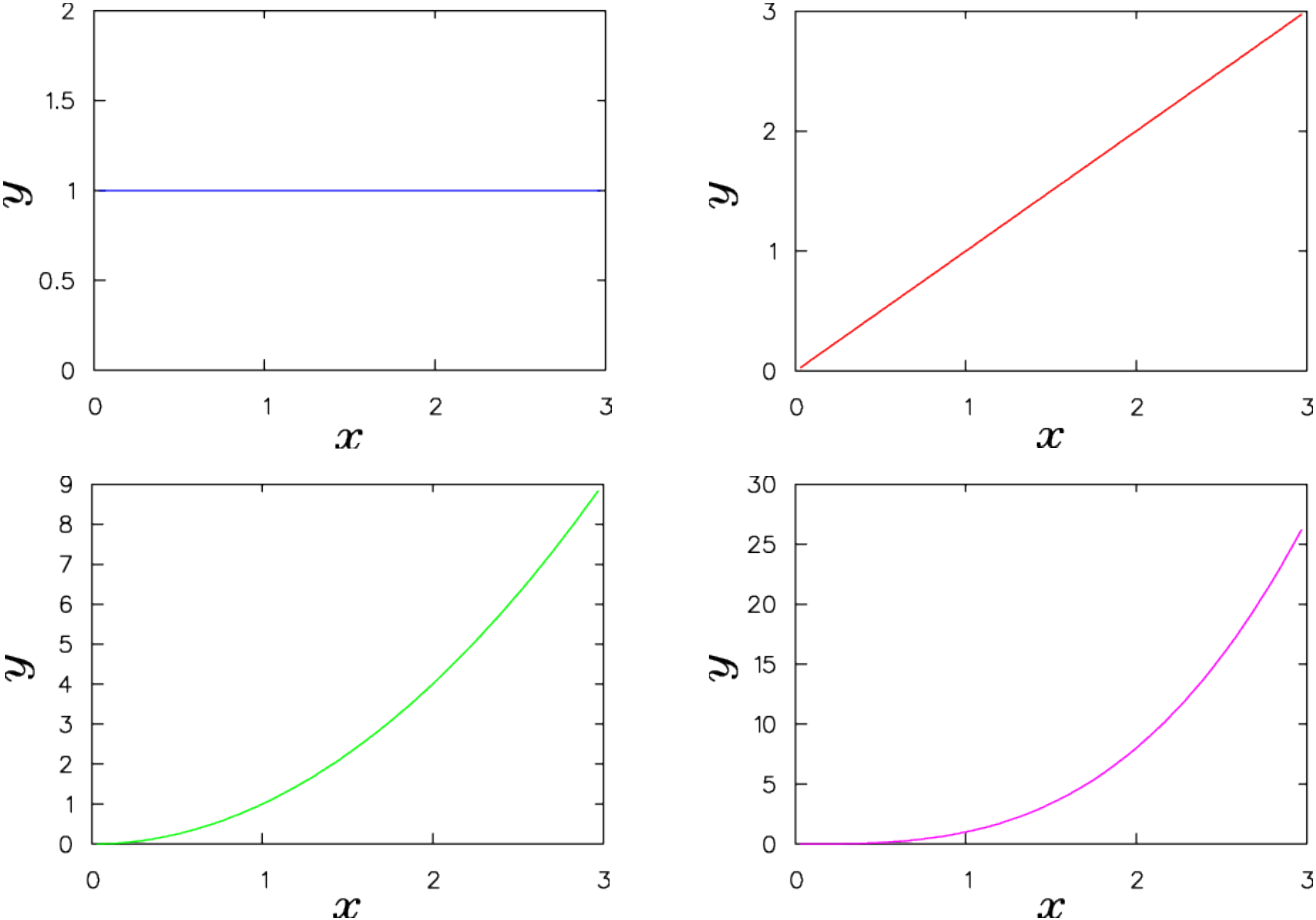
DIFFERENTIAL EQUATIONS

Jess H. Brewer

Guess the Function *and its Derivative*:



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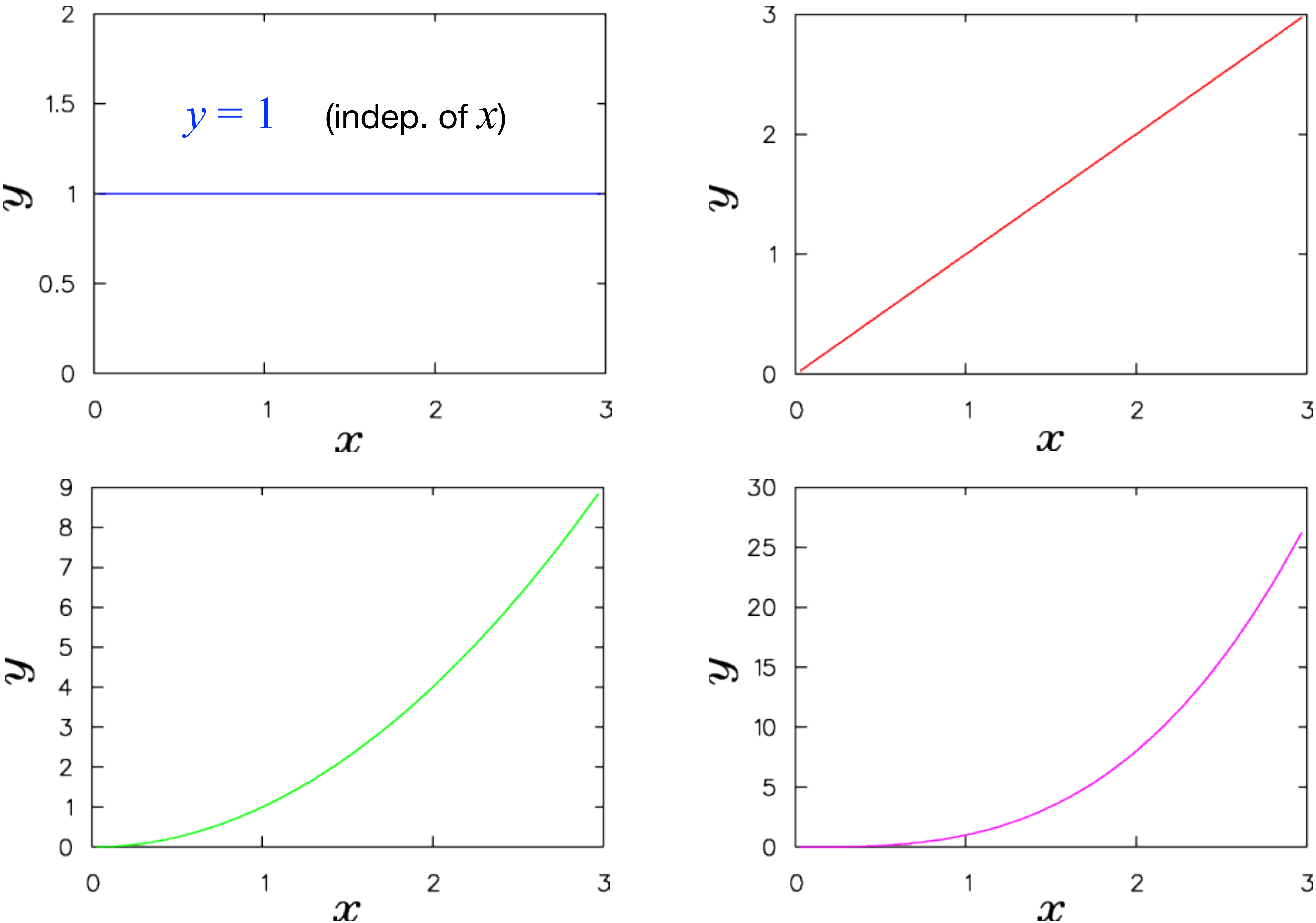

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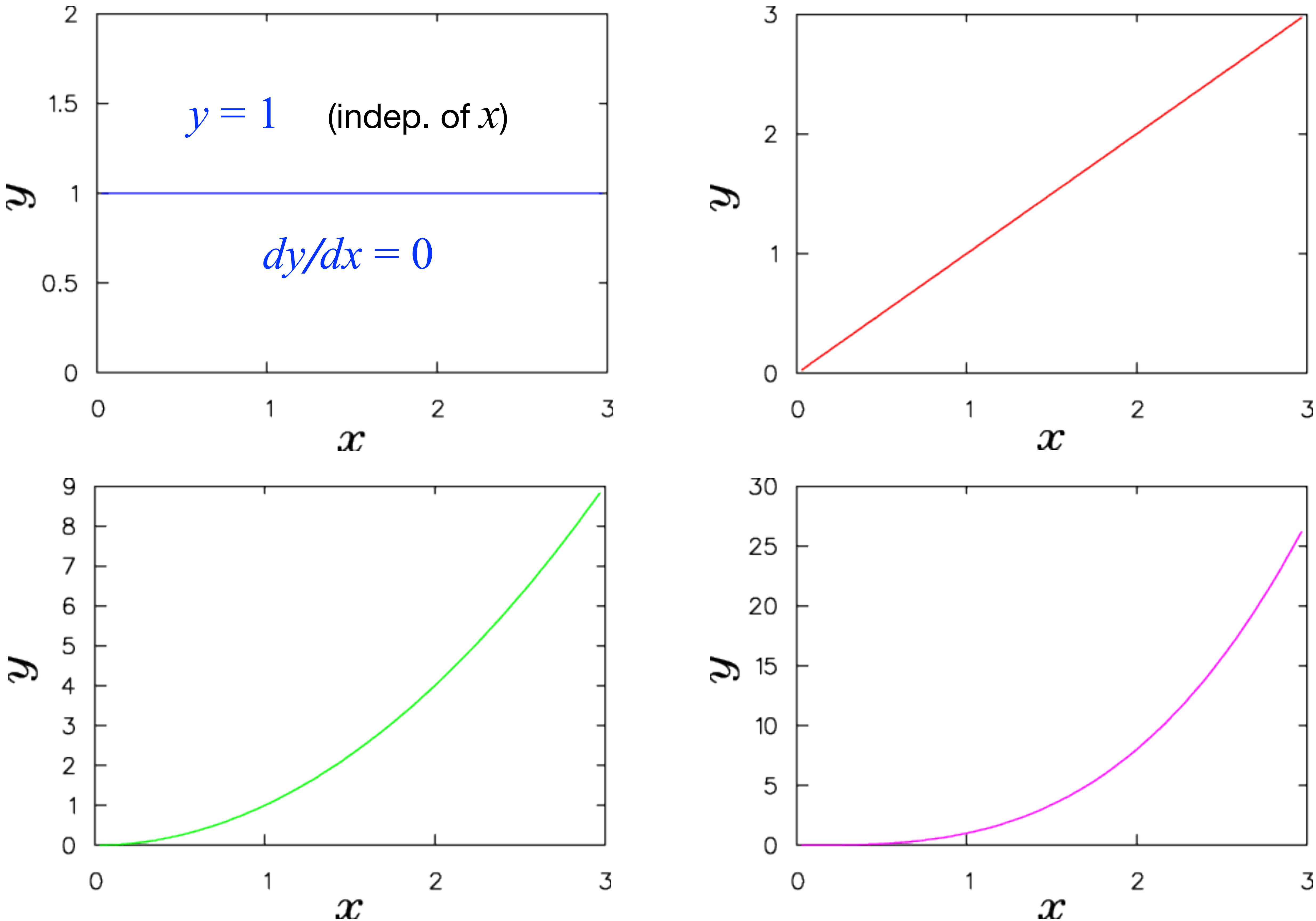

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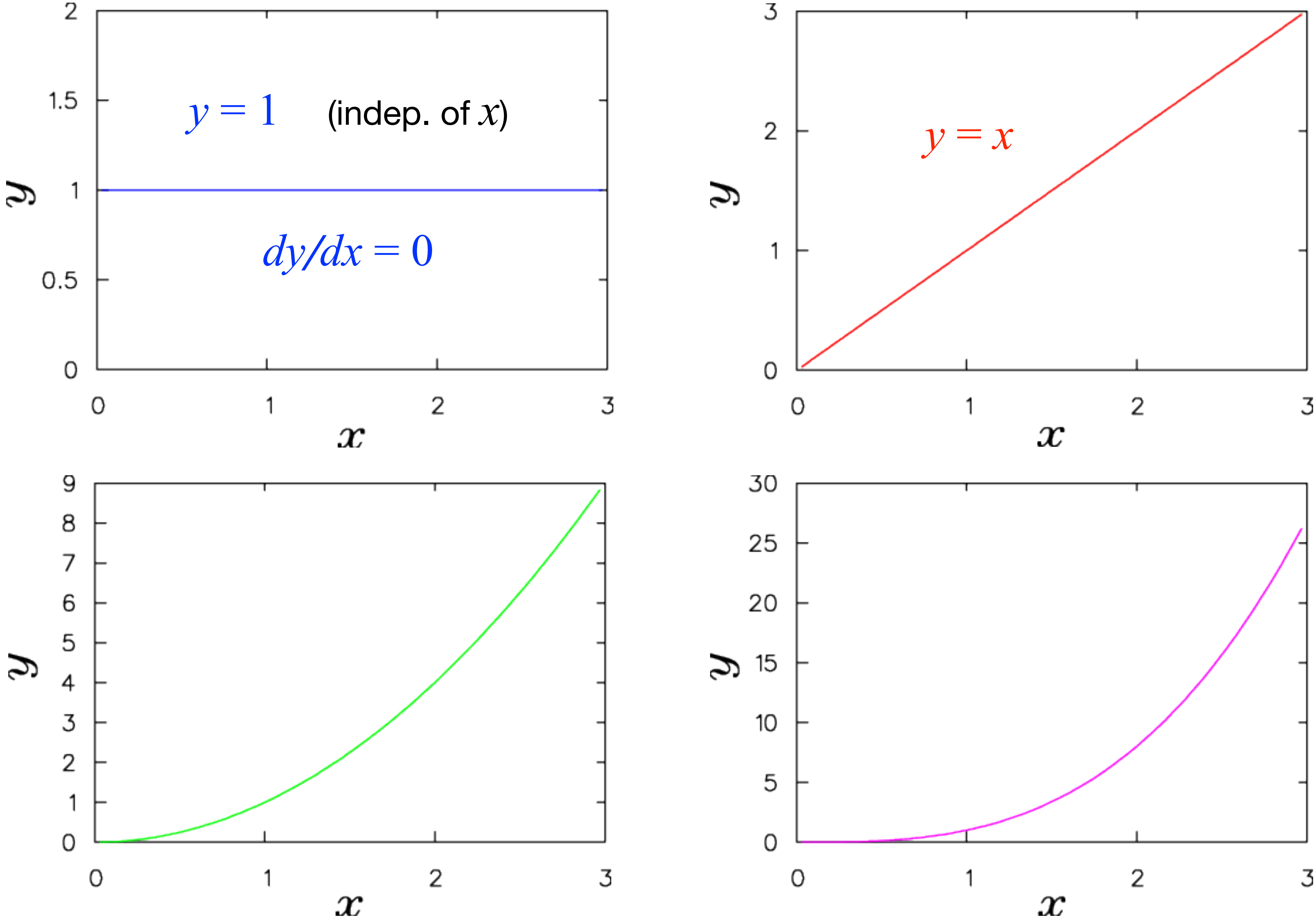

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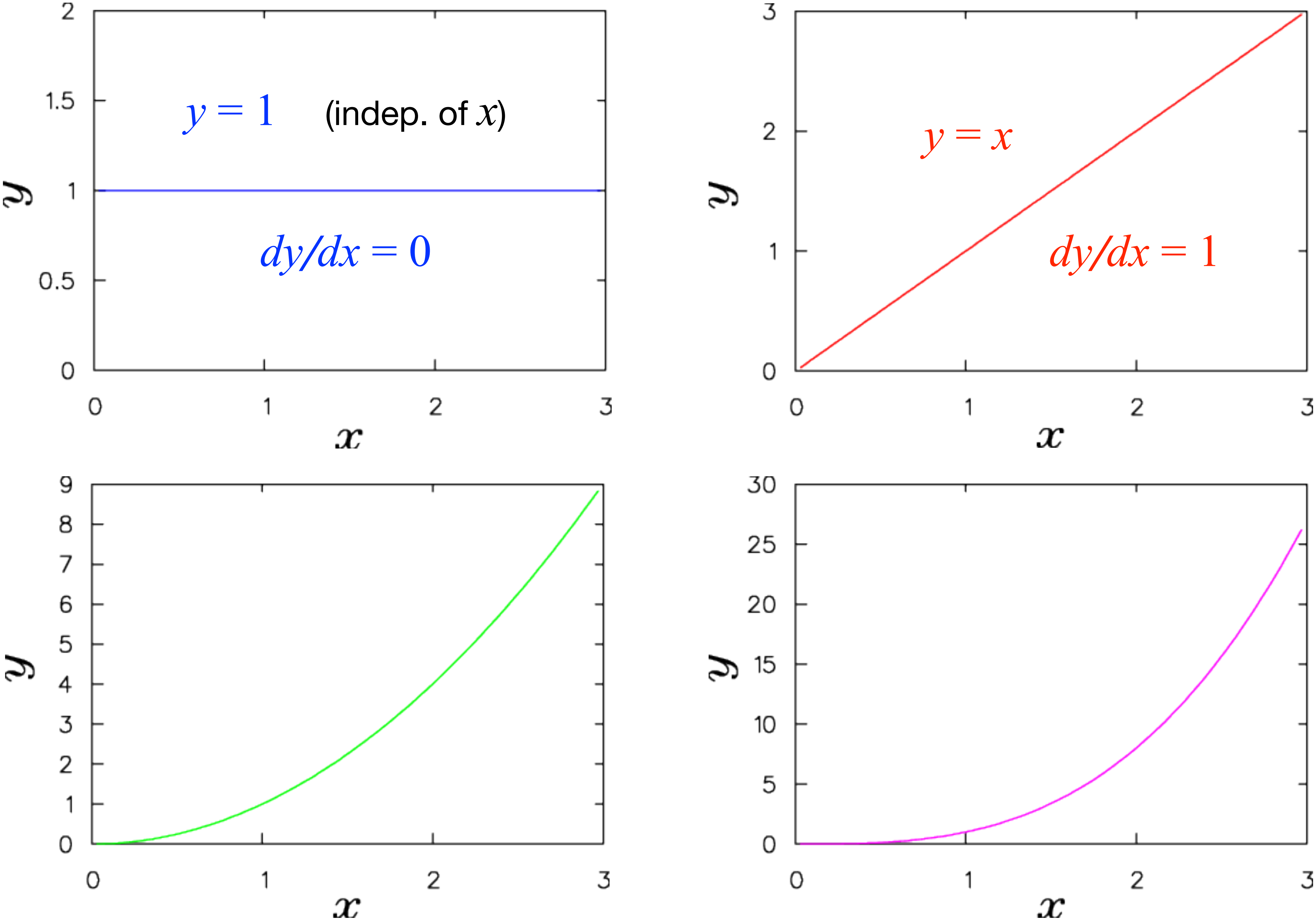

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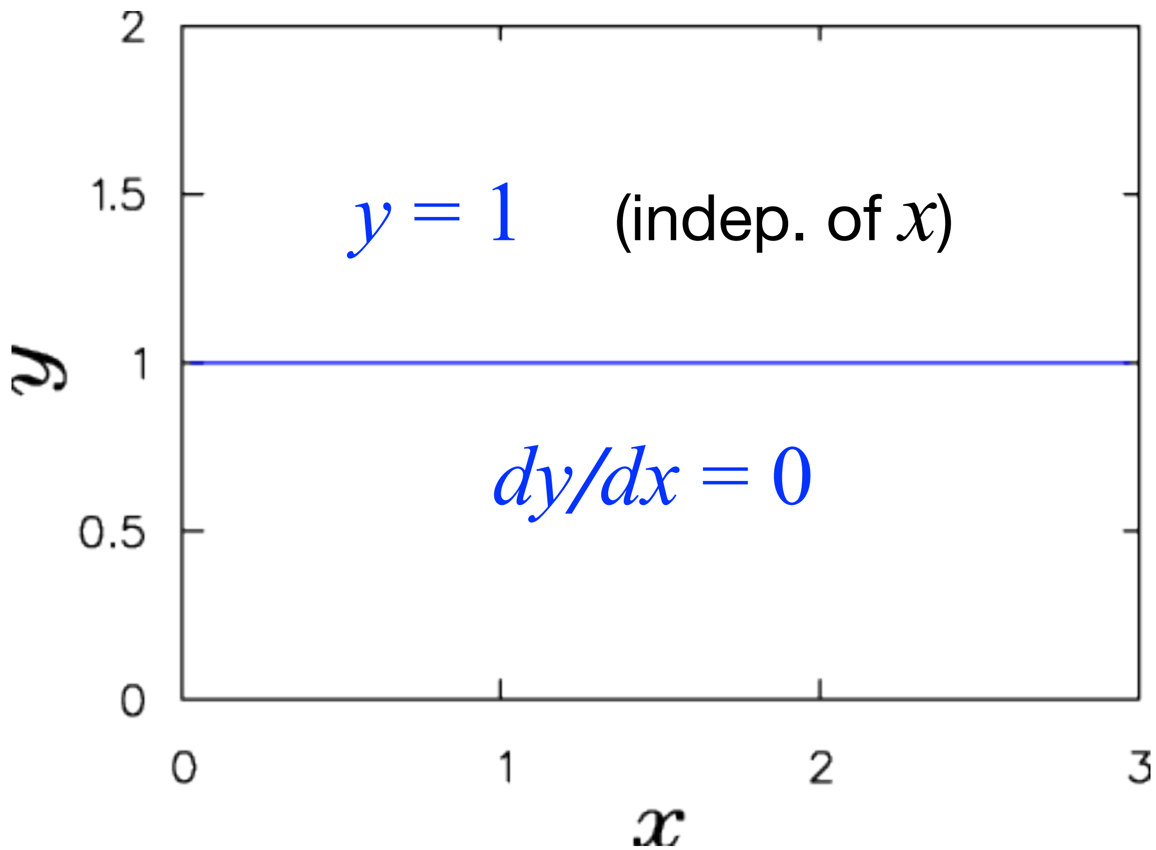

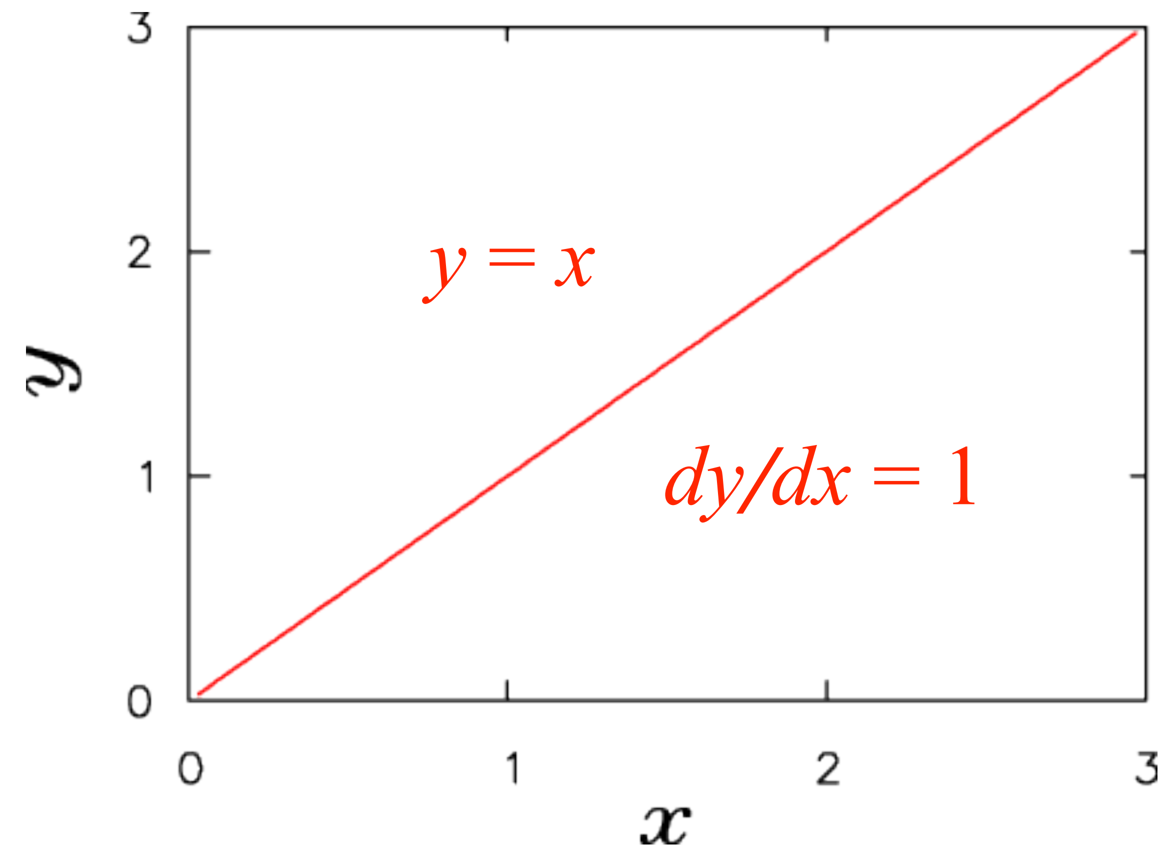

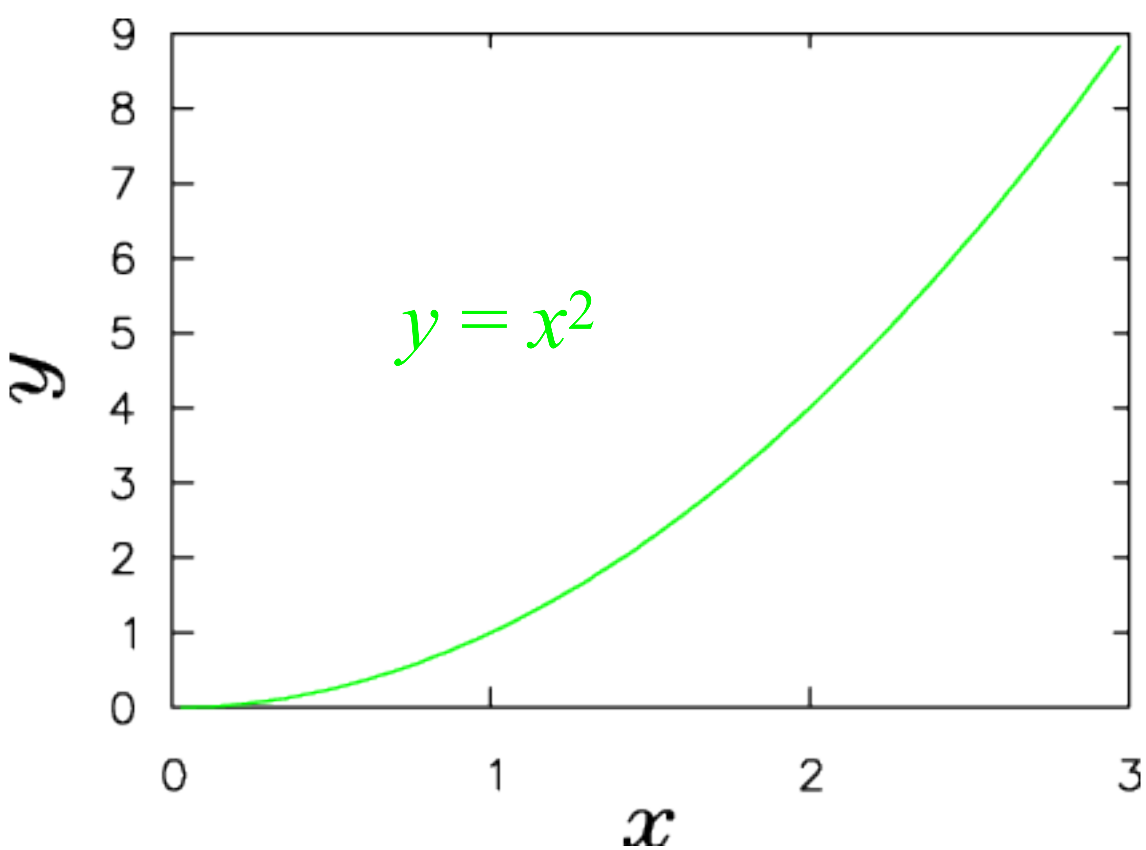

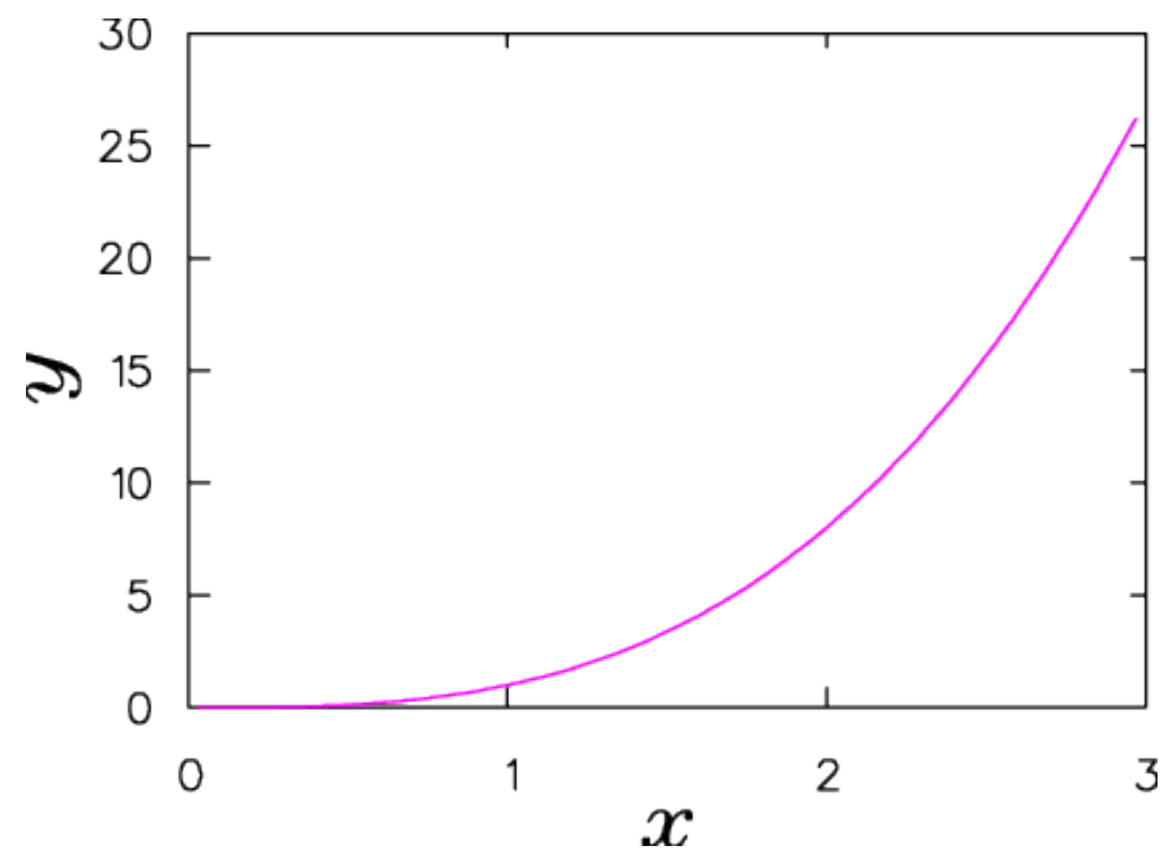

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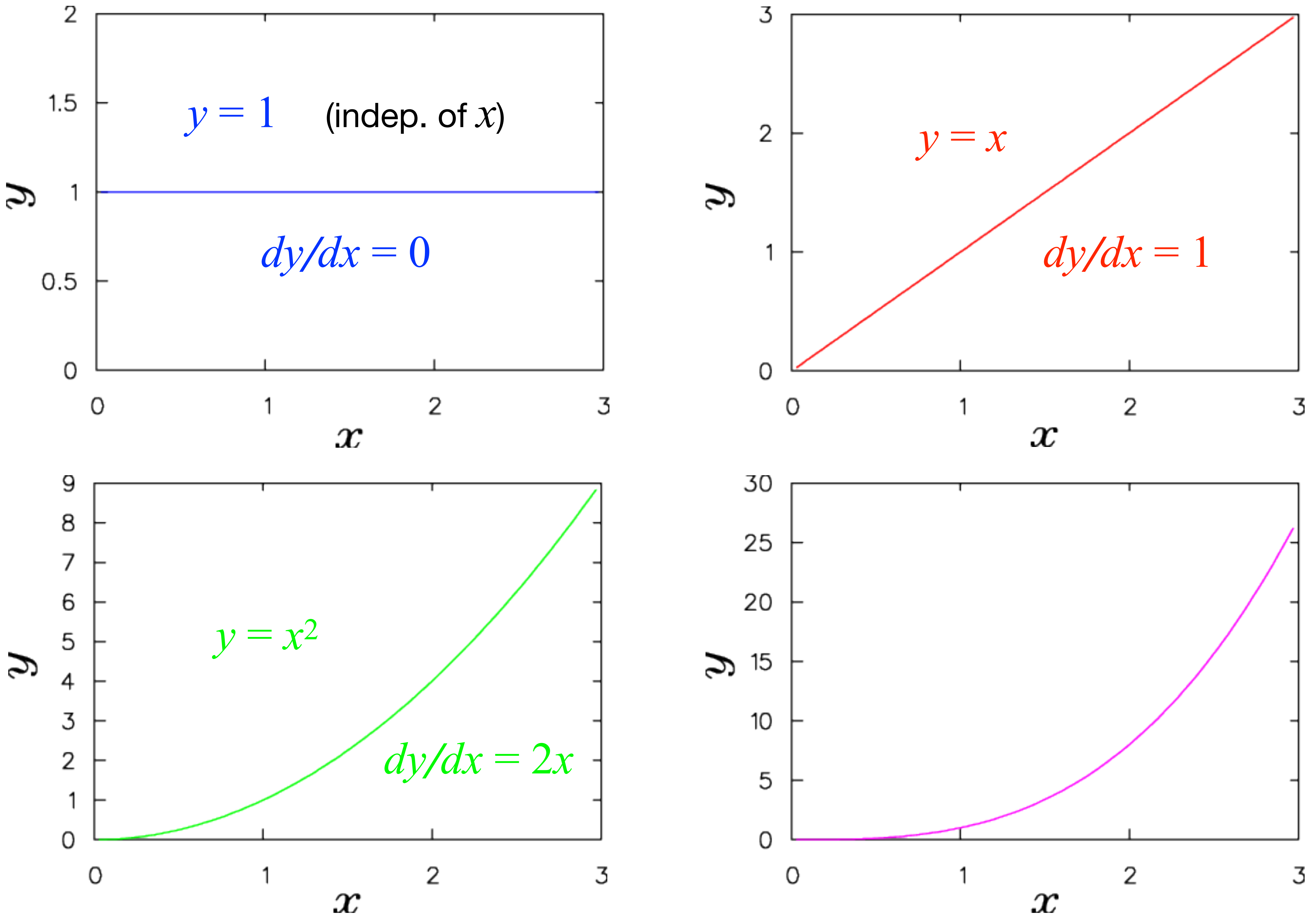

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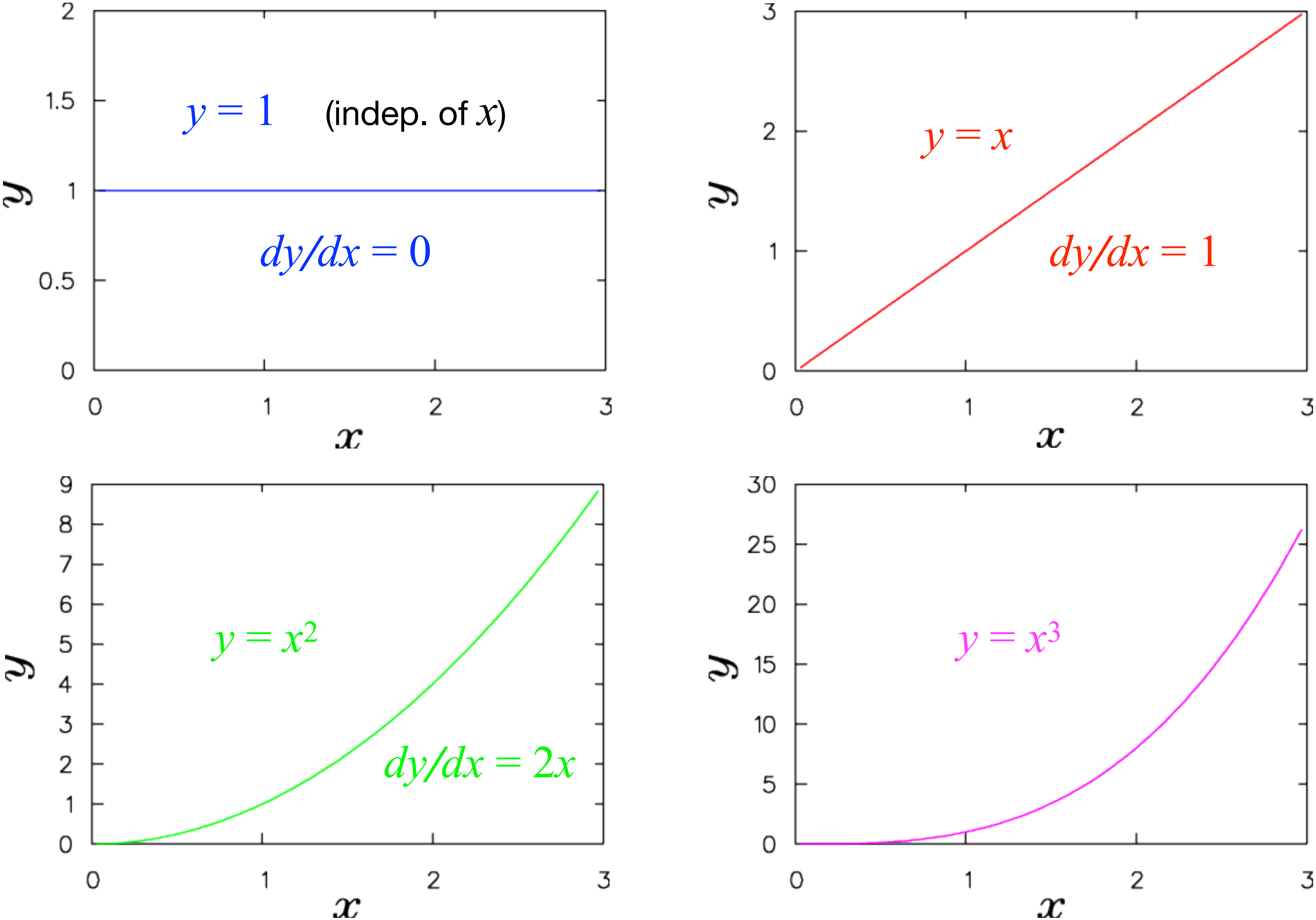

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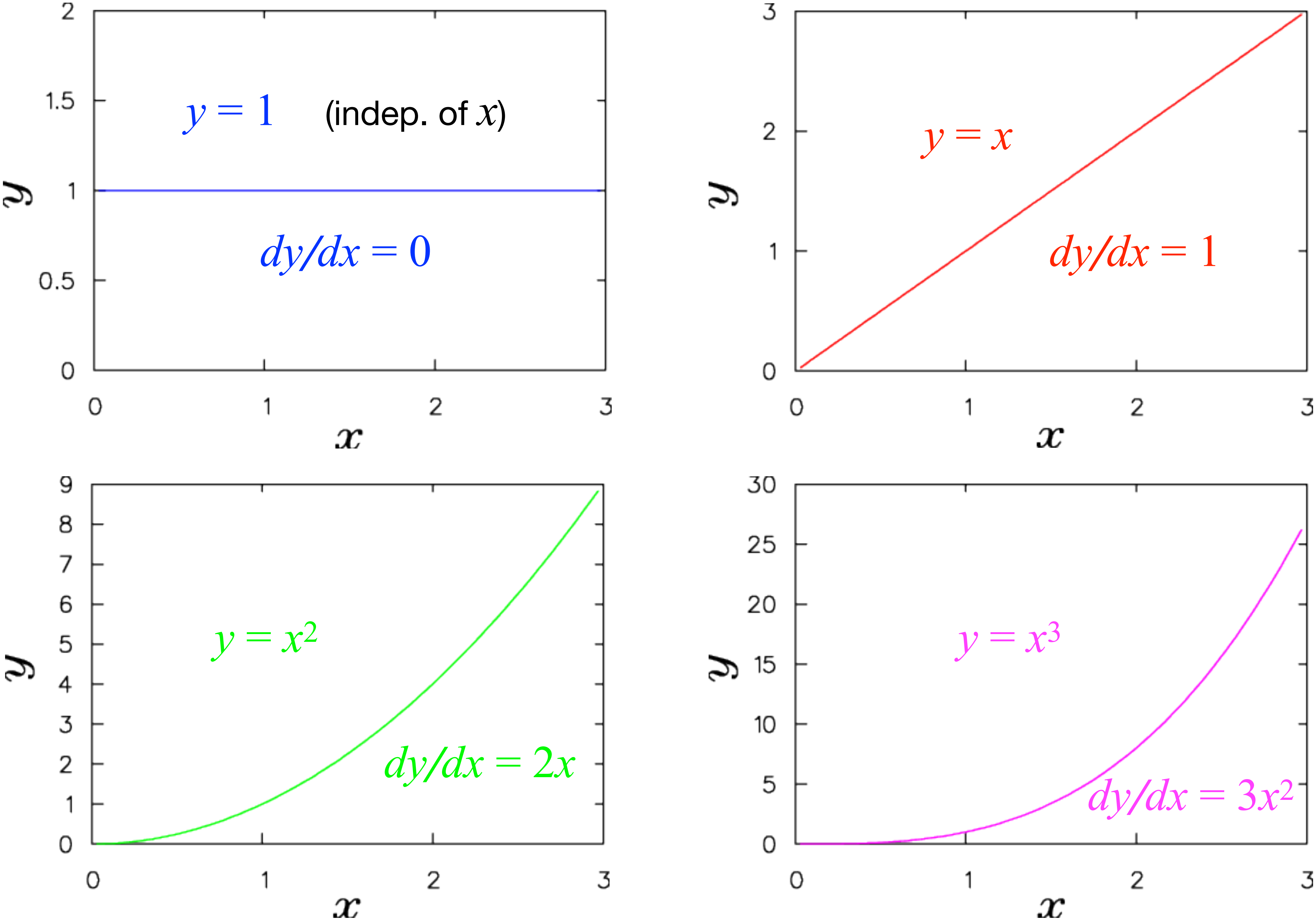

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$$dy/dx = y$$

[$y(x)$ is *its own derivative*.]

Thus it's also its own *second* derivative…
and *third* derivative… and n^{th} derivative.

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That was an example of *solving a **differential equation**!*

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(Another ***differential equation*** solved!)

How about something a little more complicated?

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(Some ***differential equations***

look harder than they *are*!)

How about an example from

Physics?

Simple
Harmonic
Motion