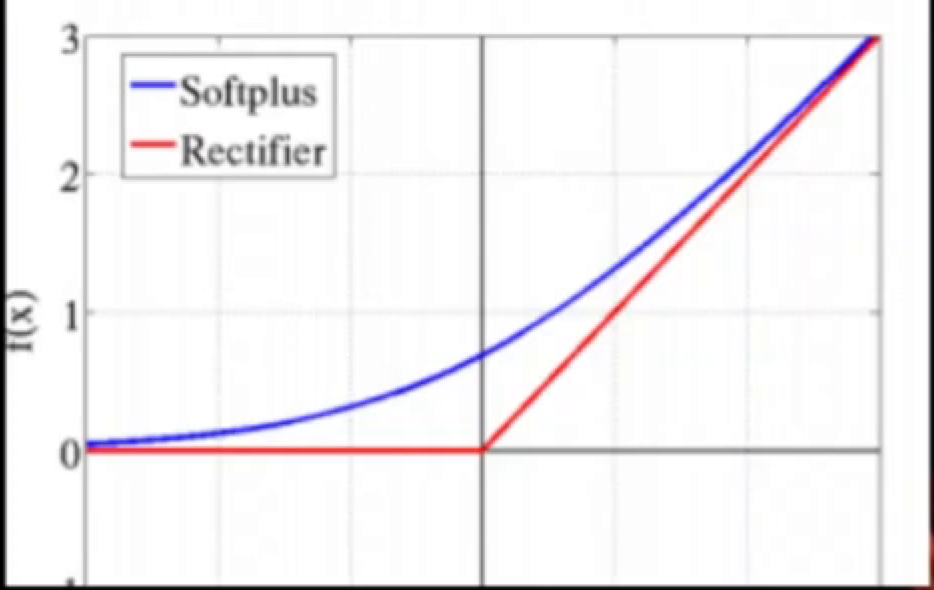
ACTIVATION
FUNCTIONS



SOFTPLUS ACTIVATION

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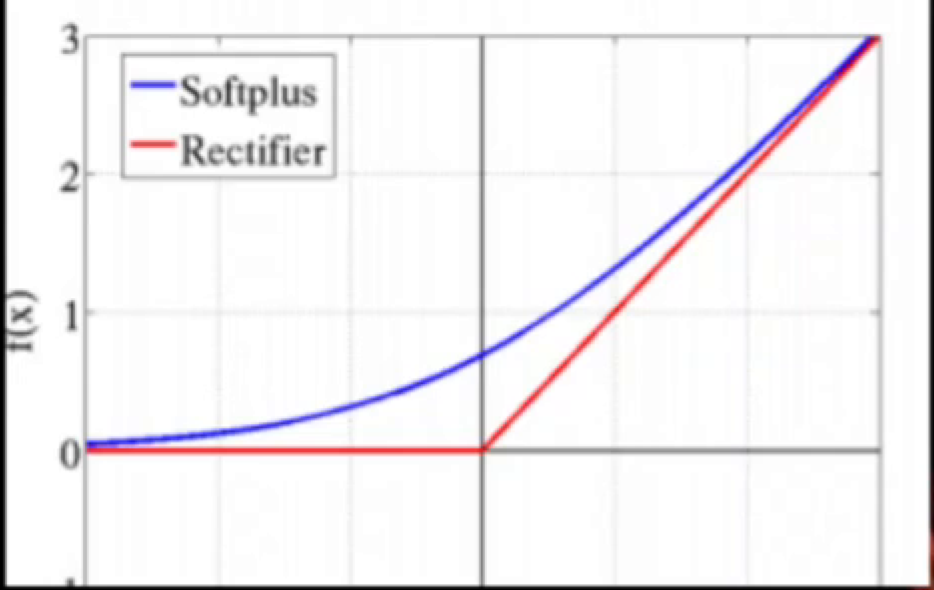

SOFTPLUS ACTIVATION

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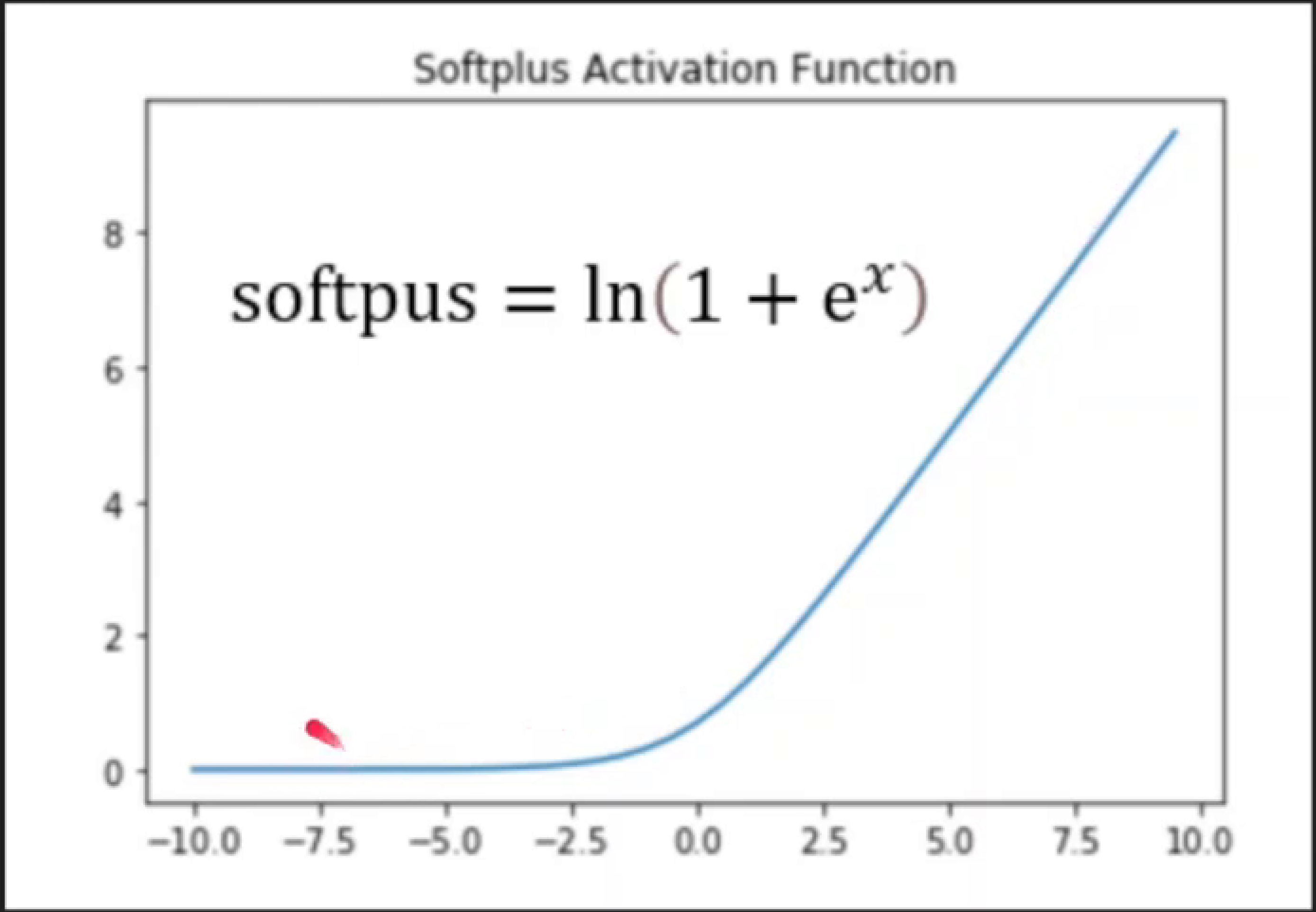
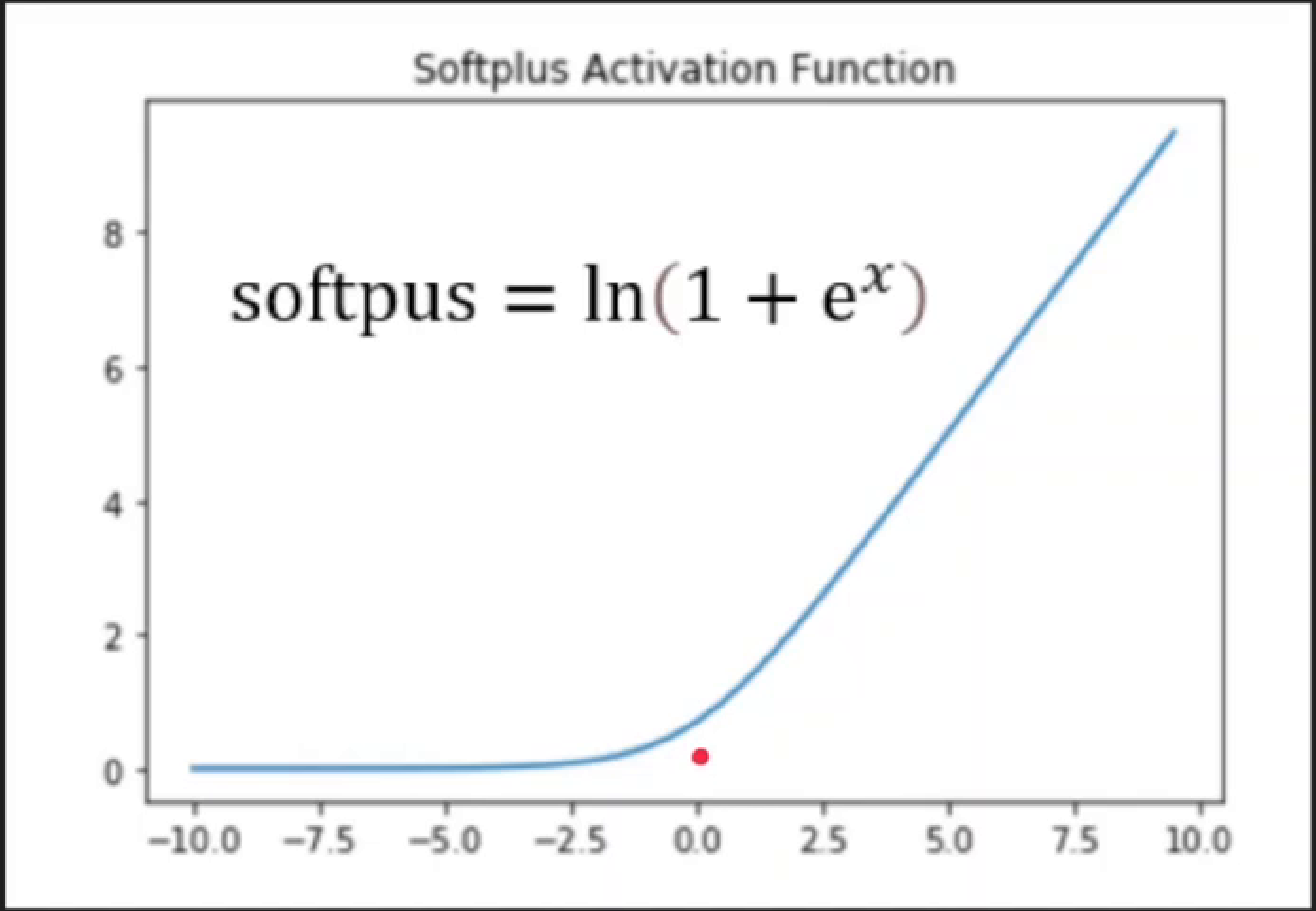


Softplus Activation



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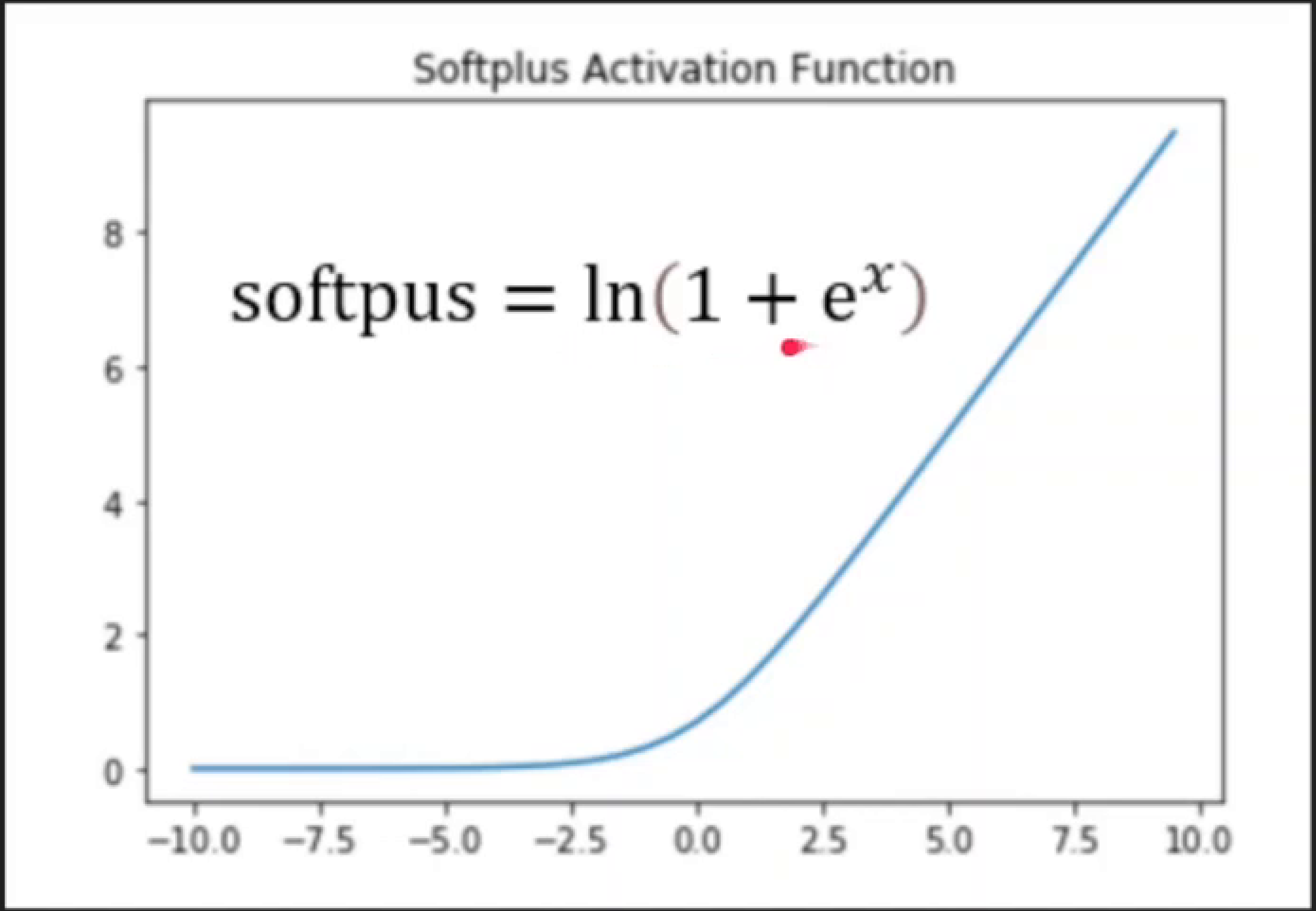

General Form

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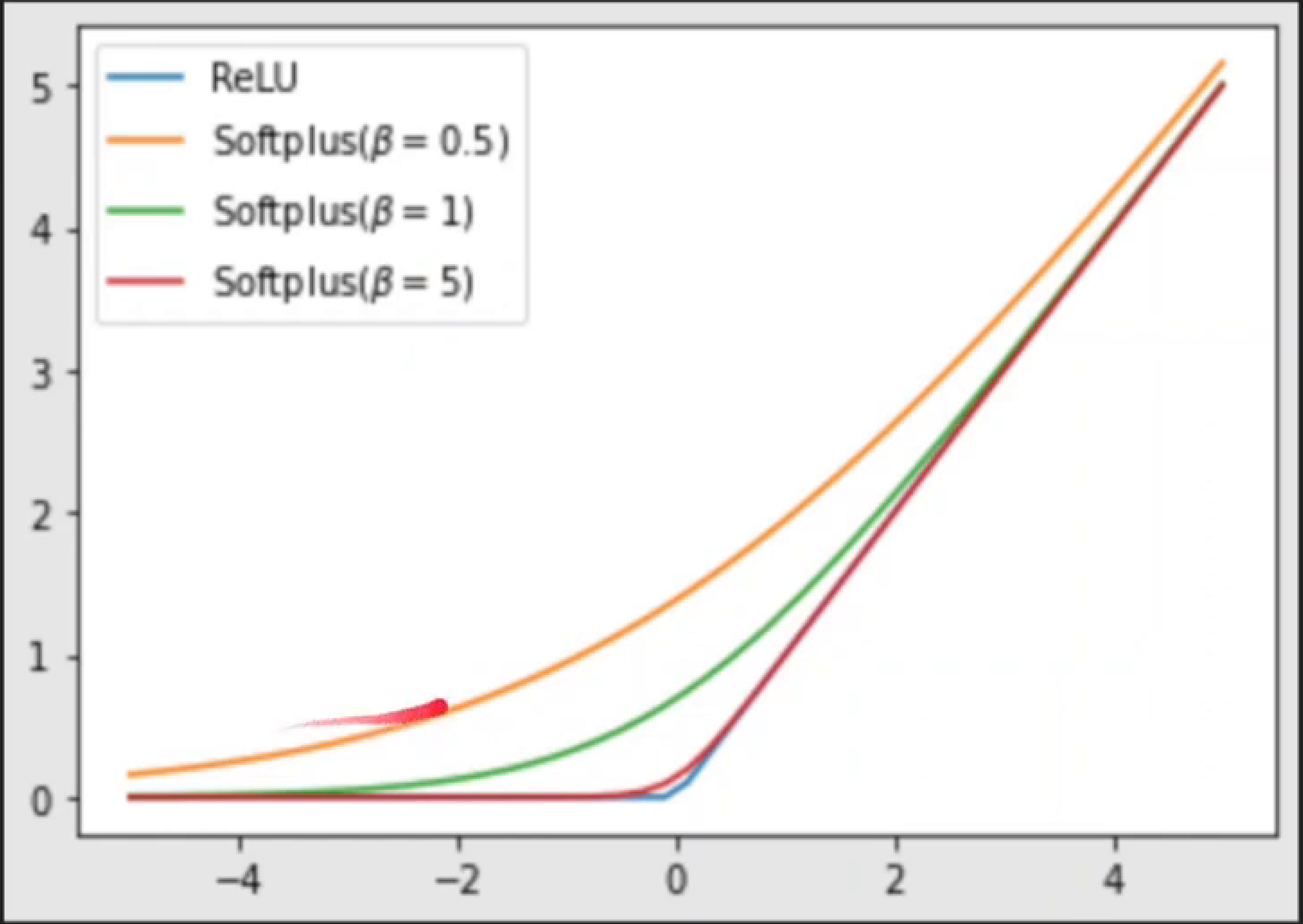

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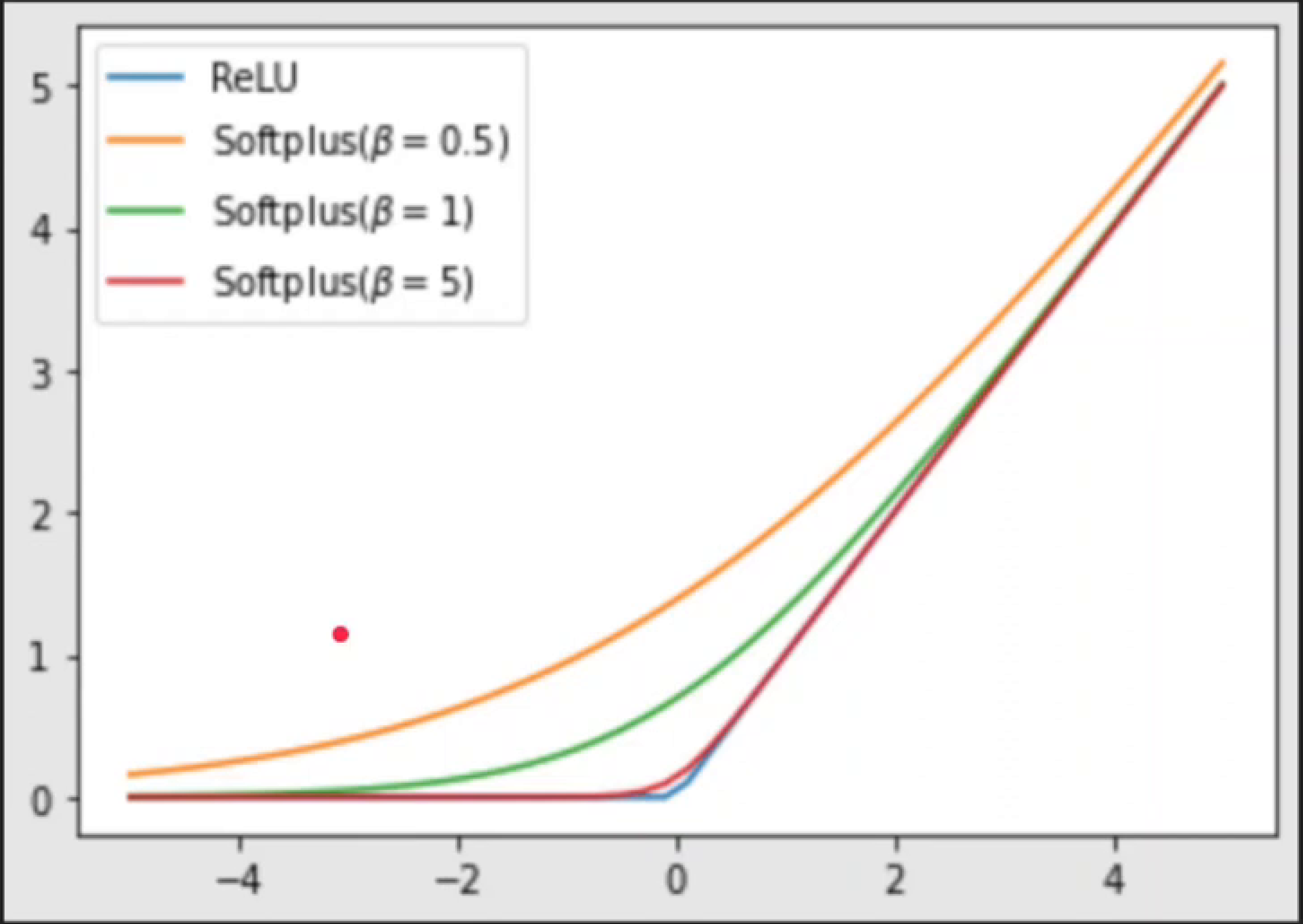

Derivative $f(x) = \ln(1 + e^x)$

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$$x$$

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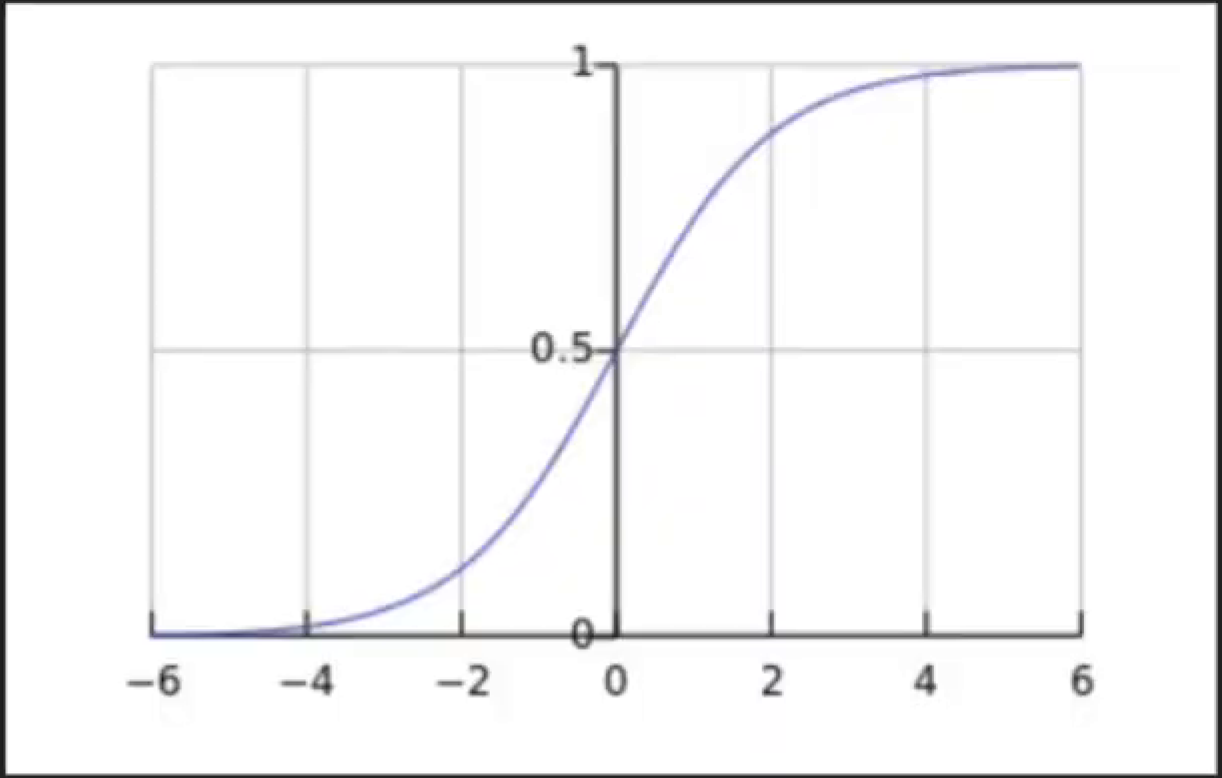
$$\Rightarrow \frac{\partial f}{\partial x} = \frac{1}{1+e^{-x}}.$$

Derivative

$$dy/dx = 1 / (1 + e^{-x})$$



Softplus

- Range - (0,inf)
- Smooth Gradient
- No Vanishing Gradient
- Computationally expensive

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