Practical 4

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1. The fomula for gradInput($\frac{\partial loss}{\partial x}$) in terms of gradOutput($\frac{\partial loss}{\partial z}$) is

$$\frac{\partial loss}{\partial x} = \begin{cases} 2x \cdot \frac{\partial loss}{\partial z}, & \text{if } x > 0 \\ 0, & \text{otherwise} \end{cases}$$

2. In order to use the two-sided version, I modefied a little of the provided code. I add $2 \cdot eps$ to the x and foward it to the module to get the value at $x + eps$. Then I made a substraction between these two values and divide the result by $2 \cdot eps$. Finally I recover the value of x to keep the model work.