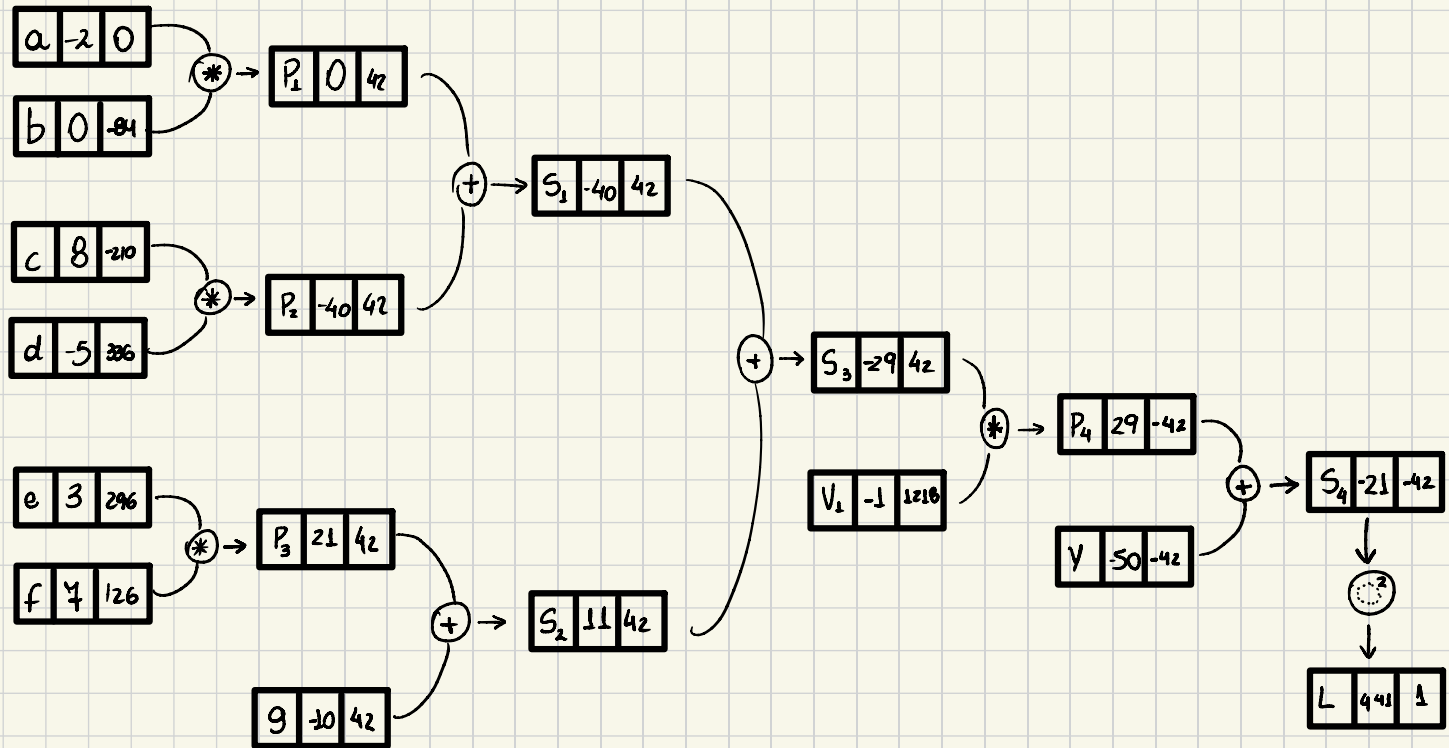


Monstrinho 1 - Caio M. C. Ruas (24010)



Derivadas

Vértice	Relação Matemática	Derivada Parcial
$L = 441$	$L = S_4^2$	$\frac{\partial L}{\partial L} = 1$
$S_4 = -21$	$S_4 = P_4 + Y$	$\frac{\partial L}{\partial S_4} = 2 \cdot S_4 = -42$
<u>$Y = -50$</u>	$Y = -50$	$\frac{\partial L}{\partial Y} = \frac{\partial L}{\partial S_4} \cdot \frac{\partial S_4}{\partial Y} = -42 \cdot 1 = -42$
$P_4 = 29$	$P_4 = S_3 \cdot V_1$	$\frac{\partial L}{\partial P_4} = \frac{\partial L}{\partial S_4} \cdot \frac{\partial S_4}{\partial P_4} = -42 \cdot 1 = -42$
$V_1 = -1$	$V_1 = -1$	$\frac{\partial L}{\partial V_1} = \frac{\partial L}{\partial P_4} \cdot \frac{\partial P_4}{\partial V_1} = -42 \cdot S_3 = -42 \cdot (-29) = 1218$
$S_3 = -29$	$S_3 = S_1 + S_2$	$\frac{\partial L}{\partial S_3} = \frac{\partial L}{\partial P_4} \cdot \frac{\partial P_4}{\partial S_3} = -42 \cdot V_1 = -42 \cdot (-1) = 42$
$S_2 = 11$	$S_2 = P_3 + g$	$\frac{\partial L}{\partial S_2} = \frac{\partial L}{\partial S_3} \cdot \frac{\partial S_3}{\partial S_2} = 42 \cdot 1 = 42$

$$S_1 = -40$$

$$S_2 = P_2 + P_1$$

$$\frac{\partial L}{\partial S_1} = \frac{\partial L}{\partial S_2} \cdot \frac{\partial S_2}{\partial S_1} = 42 \cdot 1 = 42$$

$$\underline{g = -10}$$

$$g = -10$$

$$\frac{\partial L}{\partial g} = \frac{\partial L}{\partial S_2} \cdot \frac{\partial S_2}{\partial g} = 42 \cdot 1 = 42$$

$$P_3 = 21$$

$$P_3 = e \cdot f$$

$$\frac{\partial L}{\partial P_3} = \frac{\partial L}{\partial S_2} \cdot \frac{\partial S_2}{\partial P_3} = 42 \cdot 1 = 42$$

$$P_1 = 0$$

$$P_1 = a \cdot b$$

$$\frac{\partial L}{\partial P_1} = \frac{\partial L}{\partial S_1} \cdot \frac{\partial S_1}{\partial P_1} = 42 \cdot 1 = 42$$

$$P_2 = -40$$

$$P_2 = c \cdot d$$

$$\frac{\partial L}{\partial P_2} = \frac{\partial L}{\partial S_1} \cdot \frac{\partial S_1}{\partial P_2} = 42 \cdot 1 = 42$$

$$\underline{a = -2}$$

$$a = -2$$

$$\frac{\partial L}{\partial a} = \frac{\partial L}{\partial P_1} \cdot \frac{\partial P_1}{\partial a} = 42 \cdot 0 = 0$$

$$\underline{b = 0}$$

$$b = 0$$

$$\frac{\partial L}{\partial b} = \frac{\partial L}{\partial P_1} \cdot \frac{\partial P_1}{\partial b} = 42 \cdot (-2) = -84$$

$$\underline{c = 8}$$

$$c = 8$$

$$\frac{\partial L}{\partial c} = \frac{\partial L}{\partial P_2} \cdot \frac{\partial P_2}{\partial c} = 42 \cdot (-5) = -210$$

$$\underline{d = -5}$$

$$d = -5$$

$$\frac{\partial L}{\partial d} = \frac{\partial L}{\partial P_2} \cdot \frac{\partial P_2}{\partial d} = 42 \cdot 8 = 336$$

$$\underline{e = 3}$$

$$e = 3$$

$$\frac{\partial L}{\partial e} = \frac{\partial L}{\partial P_3} \cdot \frac{\partial P_3}{\partial e} = 42 \cdot 7 = 296$$

$$\underline{f = 7}$$

$$f = 7$$

$$\frac{\partial L}{\partial f} = \frac{\partial L}{\partial P_3} \cdot \frac{\partial P_3}{\partial f} = 42 \cdot 3 = 126$$