Baekppop

Manuelly

by whale

Backprop in nutshell

After → cal → $e = -6.0$, $d = 4.0$, $L = -8.0$

Backprop is basically Calculating the $\frac{dL}{da}$.

Values → $a = 2.0$, $b = -3.0$, $c = 10$, $f = -2.0$
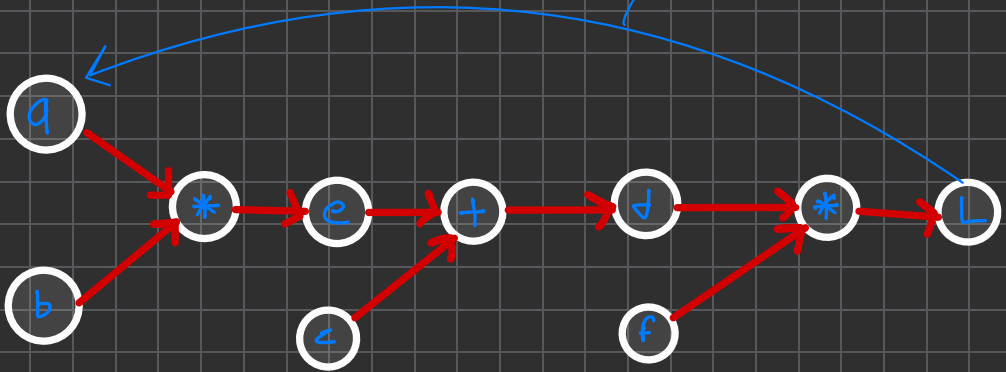
Calculation.   Goal $= \frac{dL}{da}$?

* $L = d * f$ ($d = 4.0$, $f = -2.0$)

with respect to d

$$\frac{d(L)}{dd} = 1 \cdot (-2.0) = -2.0$$

with respect to f

$$\frac{d(F)}{df} = 4 \cdot 1 = 4$$

* Gradient of $\boxed{d = -2.0}$ and $\boxed{f = 4}$

↳ $\frac{dL}{dd} = -2.0$

※ $d = e + c$; $L = d * f$

$\frac{dL}{dc}$ (Let's calculate by using the chain-rule)

$$\frac{dL}{dc} = \frac{dL}{dd} * \frac{dd}{dc} \rightarrow \underline{1.0}$$

$$= -2.0 * 1.0 = -2.0$$

※ Similarly for

(With Respect to e)

$$\boxed{\frac{dL}{de} = -2.0}$$

※ $e = a * b$; $\frac{dL}{de} = -2.0$

(With Respect to a) $\frac{dL}{da} = \frac{dL}{de} * \frac{de}{da}$ by chain Rule $\rightarrow \underline{-3.0}$

$$= -2.0 * (-3.0) = \boxed{\frac{dL}{da} = 6.0}$$

(with Respect to b) ※ Similarly $\boxed{\frac{dL}{db} = -4.0}$