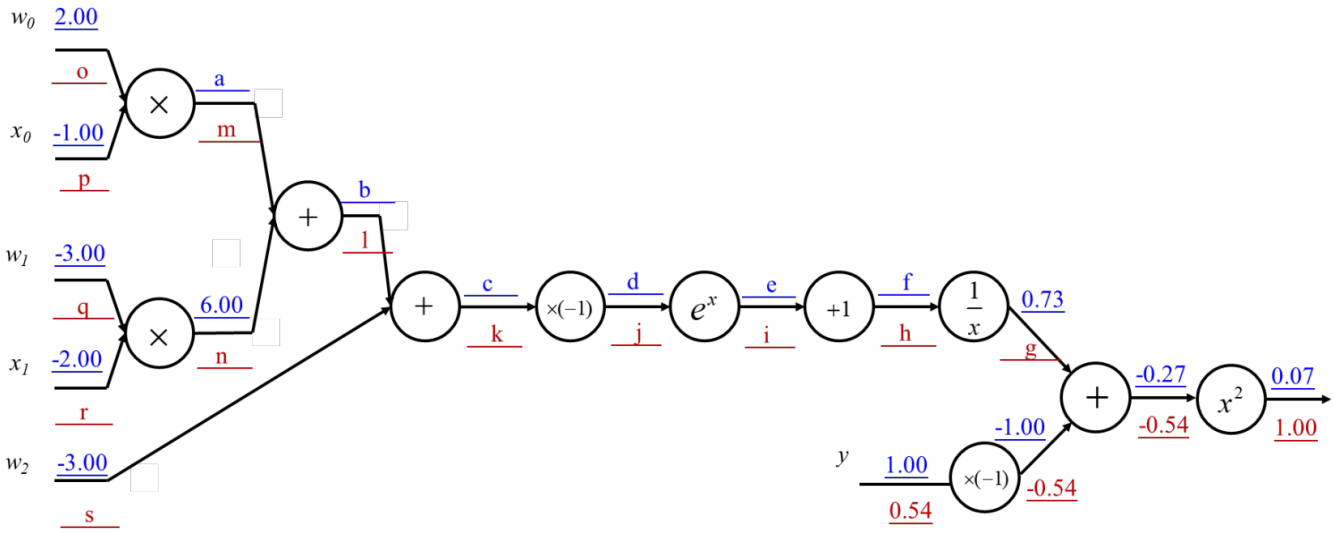
作业

> 假设一个计算过程可表达为：
>
> $$\hat{y} = f(x_0, x_1, w_0, w_1, w_2) = \frac{1}{1 + e^{-(w_0 x_0 + w_1 x_1 + w_2)}} \quad L = (\hat{y} - y)^2$$
>
> 请分别给出 a, b, ..., s 对应的值，保留 2 位小数精度。



1. $a = w_0 x_0 = 2.00 \times (-1.00) = -2.00$
2. $b = a + 6.00 = 4.00$
3. $c = b + w_2 = 4.00 + (-3.00) = 1.00$
4. $d = c \times (-1) = -1.00$
5. $e = e^d = e^{-1.00} = \frac{1}{e} = 0.37$
6. $f = e + 1 = 1 + \frac{1}{e} = 1.37$
7. $g = \frac{\delta(x+y)}{\delta x}\Big|_{x=\frac{e}{e+1}} \times (-0.54) = -0.54$
8. $h = \frac{\delta(1/x)}{\delta x}\Big|_{x=f} \times g = (-1.53) \times (-0.54) = 0.83$
9. $i = h = 0.83$
10. $j = \frac{\delta(e^x)}{\delta x}\Big|_{x=d} \times i = e^{-1.00} \times 0.83 = 0.37 \times 0.83 = 0.31$
11. $k = -j = -0.31$
12. $l = k = -0.31$
13. $m = l = -0.31$
14. $n = l = -0.31$
15. $o = x_0 m = 0.31$
16. $p = w_0 m = 0.62$
17. $q = x_1 n = 0.62$
18. $r = w_1 n = 0.93$
19. $s = k = -0.31$