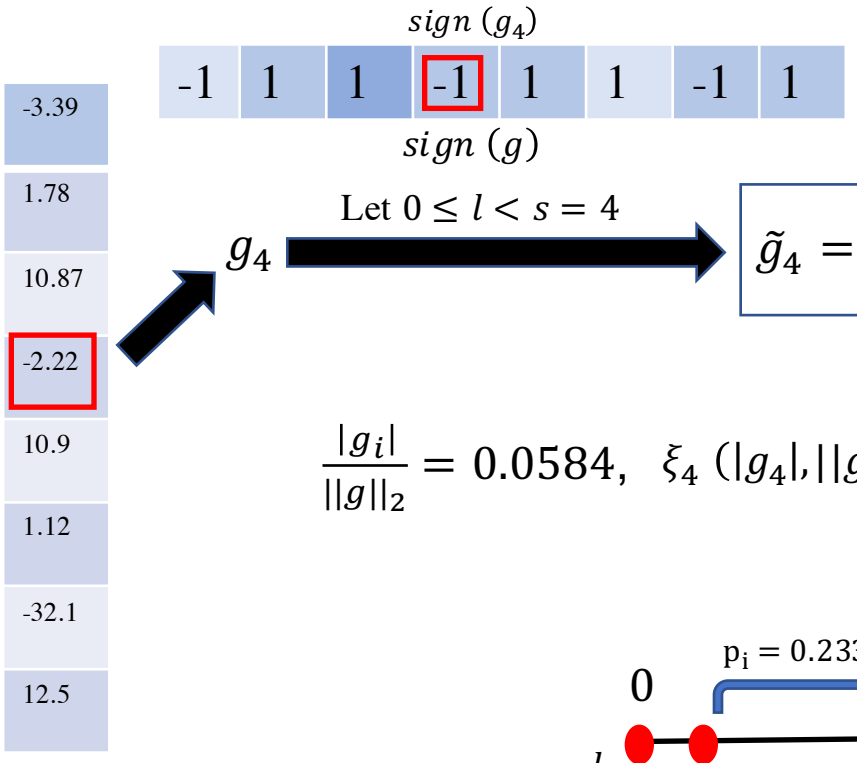
sign (g_4)
-1 1 1 -1 1 1 -1 1
sign (g)
-3.39
1.78
10.87
-2.22
10.9
1.12
-32.1
12.5
Original Gradient
Let $0 \le l < s = 4$
g_4
$\tilde{g}_4 = Q_4(g_4) = -38.0062 * \xi_4\ (|g_4|, ||g||_2) = 0$
$\frac{|g_i|}{||g||_2} = 0.0584,\ \ \xi_4\ (|g_4|, ||g||_2) =$
0 with probability $p_i = 0.7664$,
$\frac{1}{4}$ with probability $1 - p_i = 0.2336$.
0
$p_i = 0.2336$
$\frac{1}{4}$
$\frac{1}{2}$
$\frac{3}{4}$
1
$\frac{l}{s}$
0.0584
$\frac{l+1}{s}$
$1 - p_i = 0.7664$