Gradient Vanishing: Like a Telephone Game

Strong Signal

Weak Signal

×0.9 ×0.9 ×0.9 ×0.9 ×0.9 ×0.9 ×0.9

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
1.00	0.90	0.81	0.73	0.66	0.59	0.53	0.48
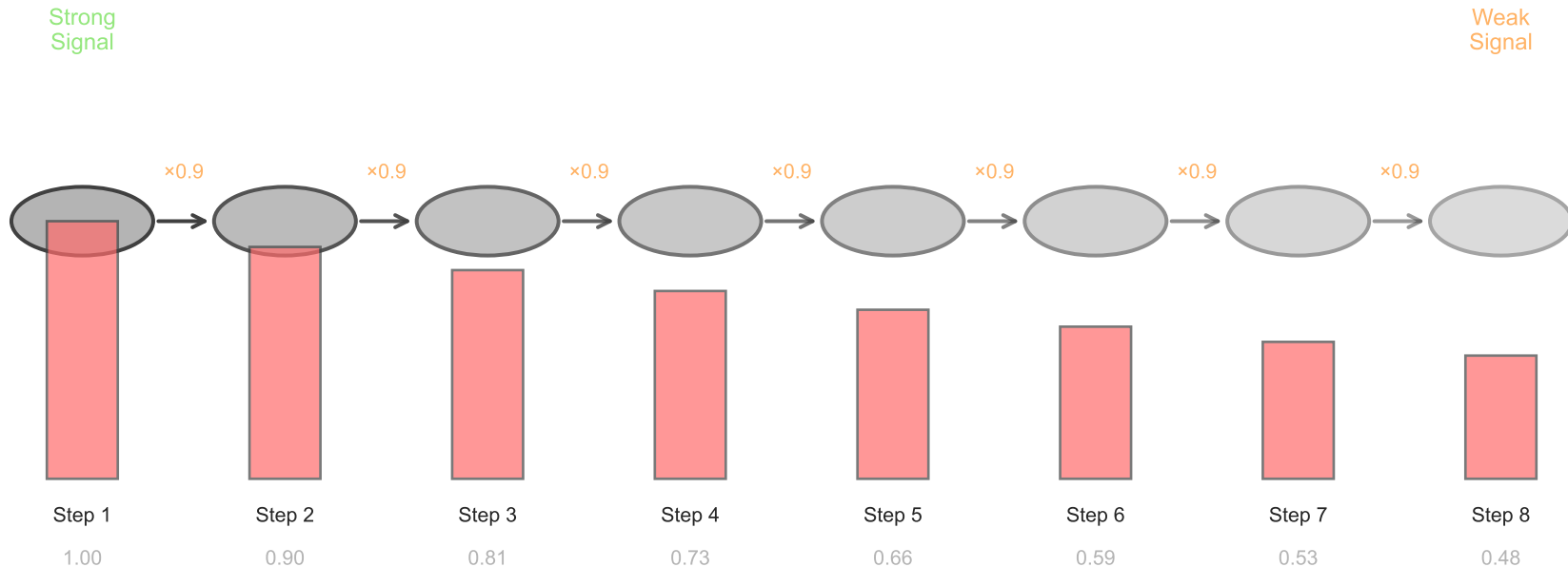
After n steps: gradient = $(0.9)^n \to 0$