$= \operatorname{argmax}_{1 \le n \le N} \sum_{t=1}^{\infty} -y_n g_t(x_n) \ln(d(t)) = \operatorname{argmax}_{1 \le n \le N} \sum_{t=1}^{\infty} -y_n g_t(x_n) \alpha_t = [d]$