

**Lecture 27 Sample Solutions**

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**Problem 27.1**

1.

$$\delta[N] = \frac{t[N]}{y[N]} - \frac{1 - t[N]}{1 - y[N]}$$

2.

$$\delta[n] = a\delta[n + 1]\dot{y}[n + 1]$$

3.

$$\frac{\partial E}{\partial b} = \sum_n \delta[n]\dot{y}[n]x[n]$$

**Problem 27.2**

$$\delta[n] = f[n + 1]\delta[n + 1]$$