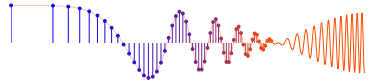

Example 7-8: Deconvolution

If we take a specific example, we can generate a solution in terms of z-transforms. Suppose that $H_1(z) = 1 + 0.1z^{-1} - 0.72z^{-2}$. We want $H(z) = 1$, so we require that

$$H_1(z)H_2(z) = 1$$

Since $H_1(z)$ is known, we can solve for $H_2(z)$ to get

$$H_2(z) = \frac{1}{H_1(z)} = \frac{1}{1 + 0.1z^{-1} - 0.72z^{-2}}$$

