Example 9-8: 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

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

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