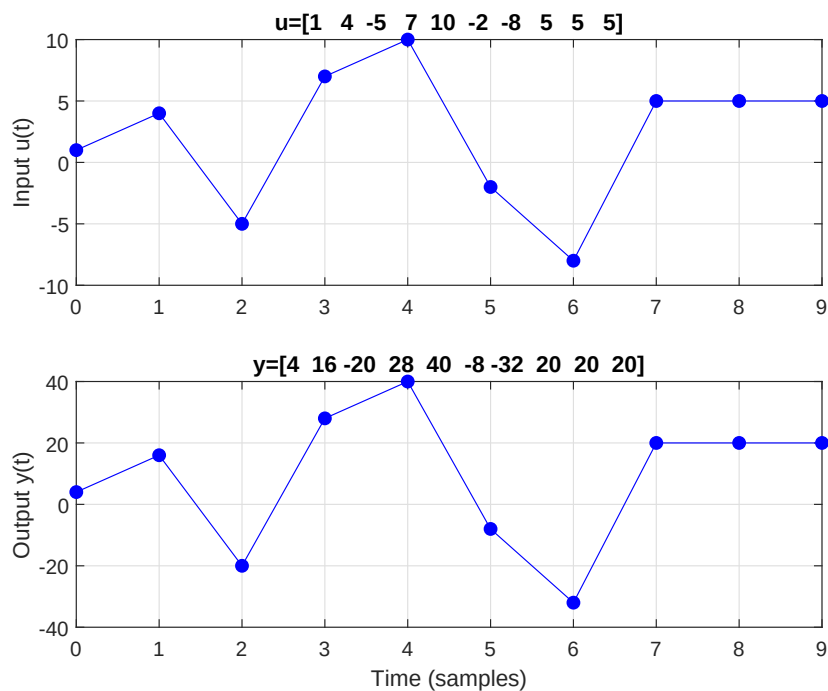


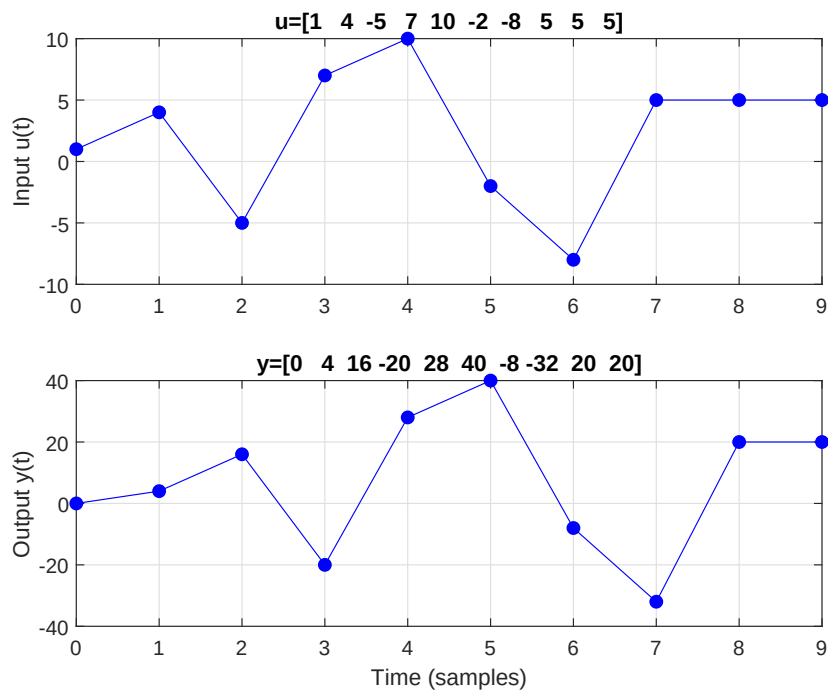
Example 1. Let us consider the following input and output signals ($N = 10$). Assume $u(t) = 0, \forall t < 0$. Find a suitable model to describe the input/output relationship.



Solution:

$$y(t) = 4u(t)$$

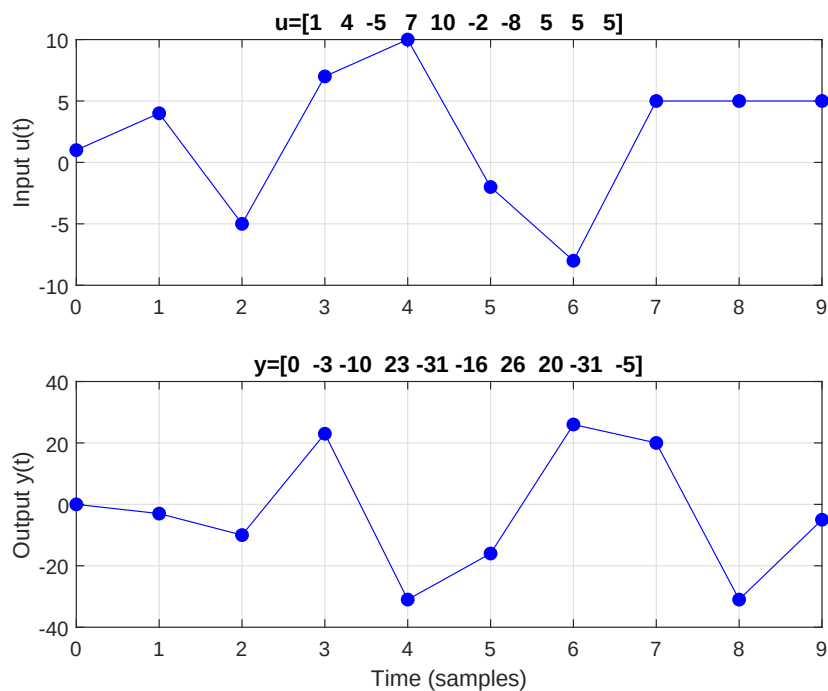
Example 2. Let us consider the following input and output signals ($N = 10$). Assume $u(t) = 0, \forall t < 0$. Find a suitable model to describe the input/output relationship.



Solution:

$$y(t) = 4u(t - 1)$$

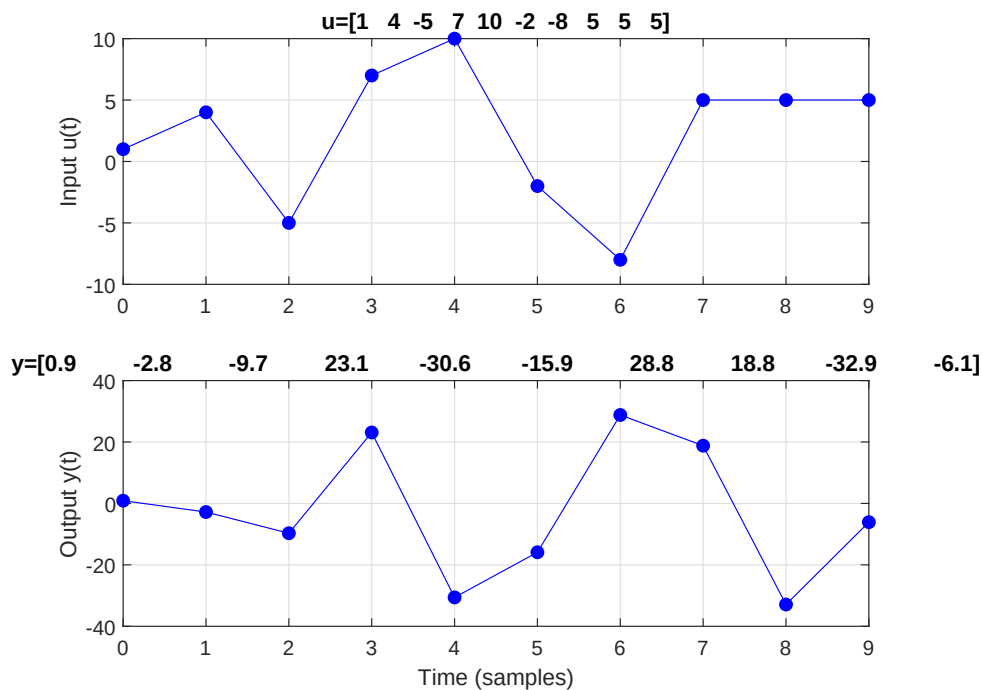
Example 3. Let us consider the following input and output signals ($N = 10$). Assume $u(t) = 0, \forall t < 0$. Find a suitable model to describe the input/output relationship.



Solution:

$$y(t) = -3u(t-1) + 2u(t-2)$$

Example 4. Let us consider the following input and output signals ($N = 10$). Assume $u(t) = 0, \forall t < 0$. Find a suitable model to describe the input/output relationship.



Solution:

$$y(t) = -3u(t-1) + 2u(t-2) \quad \text{Yes, the same as before!}$$