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Analog and digital signals are used to transmit information, usually through electric signals. In both these technologies, the information, such as any audio or video, is transformed into electric signals. The difference between analog and digital technologies is that in analog tech-

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The transformation involves time reversal and time scaling. Plot the original signal by replacing the time axis  $t$  with  $at$  as shown in Figure 1. Comment (0) Step 2 of 40. Solve the transformation for the variable  $t$ . Draw the transformed  $t$ -axis just below the  $-at$ -axis as shown in Figure 2.

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Sketch the step response  $s(n)$ . The step response is the system output when the input is the step function  $u(n)$ . 1.2.20 For an LTI system it is known that input signal  $x(n) = (n) + 3(n-1)$  produces the following output signal:  $y(n) = 1.2n u(n)$ : What is the output signal when the following input signal is applied to the system?  $x_2(n) = 2(n-2) \dots$

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