

Problem 5.17

The quantizer has the following input-output curve plotted in Fig. 1

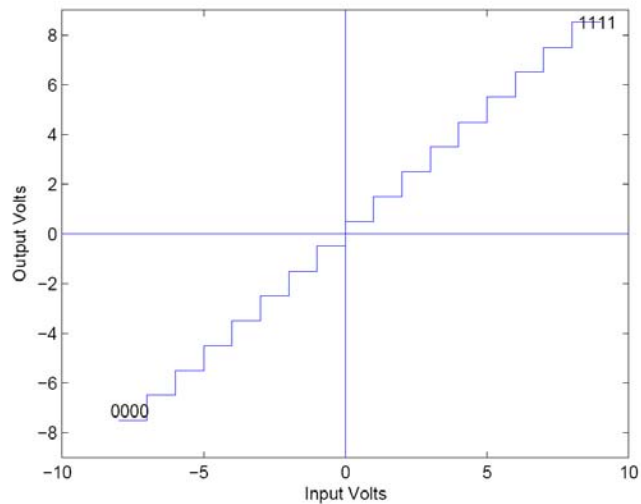


Figure 1

At the sampling instants we have:

t	$m(t)$	code
$-3/8$	$-3\sqrt{2}$	0011
$-1/8$	$-3\sqrt{2}$	0011
$+1/8$	$3\sqrt{2}$	1100
$+3/8$	$3\sqrt{2}$	1100

And the coded waveform is (assuming on-off signaling):



Figure 2