

EX: A company manufacturing inexpensive analog function generators measures the frequency they produce when set to 1 kHz. They measure the following values in Hz:

$$f_1 = 998 \quad f_2 = 997 \quad f_3 = 1003 \quad f_4 = 1001 \quad f_5 = 999 \quad f_6 = 1001$$

$$f_7 = 998 \quad f_8 = 1002 \quad f_9 = 1000 \quad f_{10} = 1001 \quad f_{11} = 1000$$

Make a histogram of the data for a bin size of 1 Hz with one of the bins centered on 1 kHz. (In other words, one of the bins is for 999.5 to 1000.5 Hz.)

SOL'N: The histogram is bar chart showing how many values fall into each bin. In the present case, the bins correspond to integer frequencies, and we need only count how often each frequency occurs:

bin	# values in bin
997	1
998	2
999	1
1000	2
1001	3
1002	1
1003	1

The values in the second column are the heights of the bars on the histogram:

Histogram of Function Generator Frequencies

