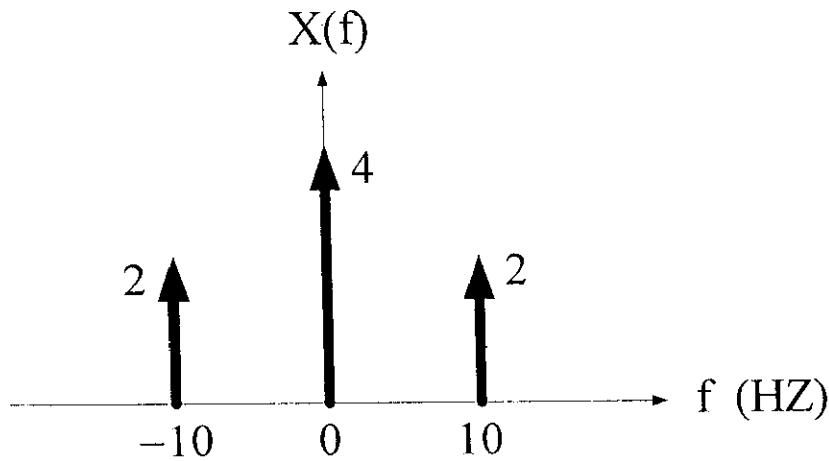


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Let $x(t)$ be a signal with a Fourier Transform $X(f)$ shown above

If $x(t)$ is sampled at $f_s = 15$ HZ

(a) Is there aliasing, explain?

(b) Plot the spectrum of sampled signal $X_s(f)$? (Plot up to ± 40 HZ only)

(a) Nyquist Rate = 2 (maximum frequency in $X(f)$)
 $= 2(10) = 20$ HZ

Since $f_s <$ Nyquist rate

\Rightarrow there is Aliasing.

