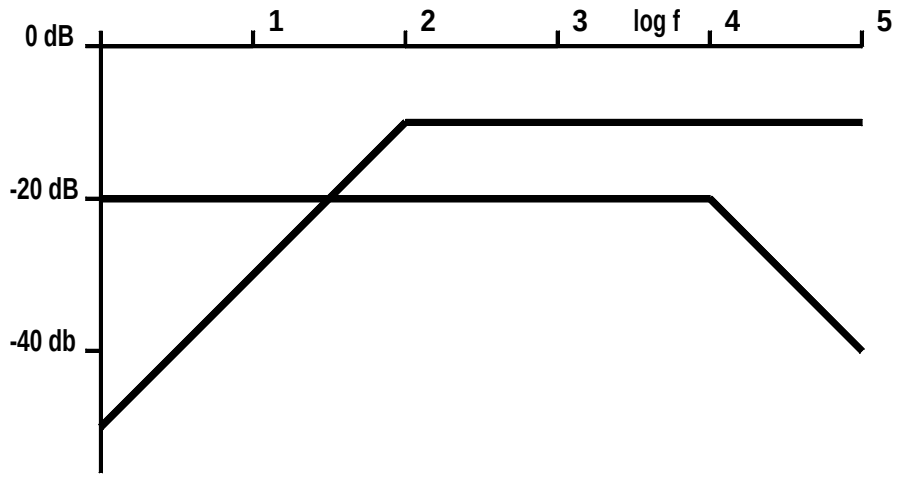


The responses of two circuit blocks are shown superimposed in the figure.
The blocks are connected in series.
Sketch the system response.

The response of circuits connected in series to a sinusoidal signal is obtained by

1. Multiplying together the responses of each of the circuits

2. Adding the attenuations of each of the circuits to obtain an attenuation for the full circuit

Two circuits attenuate signals of 1 kHz by -17 dB and -8 dB respectivly.
When the circuit are connected in series, the attenuation is

1. -9 dB
2. -25 dB
3. $+25$ dB
4. a factor of 0.056

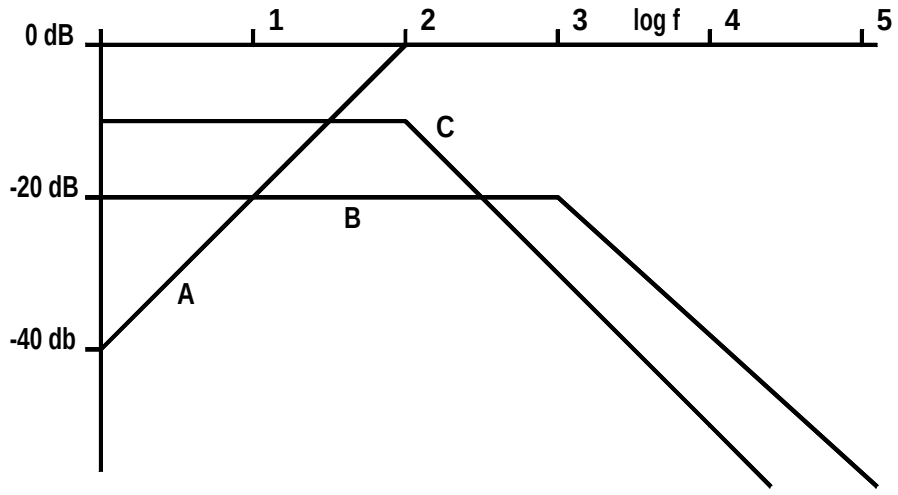
The shape of a square waveform is distorted when it is passed through a low pass filter because

1. The different Fourier components are attenuated by different amounts

2. The phases of the Fourier components are shifted by different amounts

3. both of the above

4. some of the above



The responses of three circuit blocks are shown superimposed in the figure.
The blocks are connected in series.
Sketch the system response.