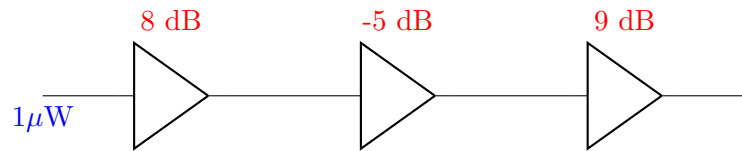
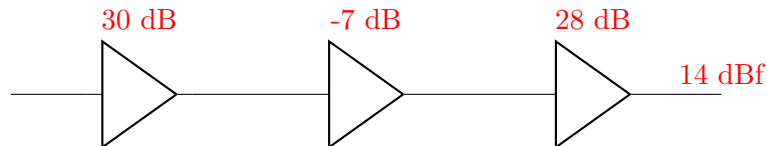


1. What is the output power of the amplifier on the right in both Watts and dBm?



2. What is the input power of the amplifier on the left in both Watts and dBm?



3. Complete the chart below. All value in each row (horizontal) must be equivalent. Use appropriate SI prefixes in the first column. Show your work.

W	dbW	dbm	dBf
	21.14		
			93.0
		-41	
35 nW			

4. The signal to noise ratio of an amplifier is 8 dB and the signal magnitude is $125\text{ }\mu\text{V}$. What is the magnitude of the noise?
5. If a 12 dB amplifier has a Noise Figure of 6 dB , what is the signal to noise ratio of the output if the input has a SNR of 24 dB ? Express it as both a dB and scalar value.