

Advanced Sound Weekend Assignment: ***Answer the following questions.***

What is phase cancellation? What is meant by “out of phase”?

Describe how phase cancellation can cause problems when recording near a reflective surface.

Describe how phase cancellation can cause problems when recording with stereo (2) or more microphones at the same time.

What is the comb filter effect?

What do we need from a monitor speaker?

Describe time alignment of woofers and tweeters in monitor speakers.

Describe frequency response of monitor speakers.

Describe harmonic distortion.

What is a crossover? Bonus: what is a crossover *slope*?

What is an active or passive speaker?

How do speakers interact with rooms, part 1: hard or soft room surfaces?

How do speakers interact with rooms, part 1: placement of the speaker in the room?

What is pink noise? White noise?

Why is white noise brighter sounding?

How does a RTA (real time analyzer) help when setting up a speaker?

What is the time difference (in the arrival of sound at the mic) for 1 foot difference in mic to instrument?

Describe a frequency response curve for a mic.

How is frequency response *related* to polar pattern? Why is just knowing the frequency response and basic polar pattern not enough to judge a mic's quality?