

Physics Interactive Quiz : Interference/Diffraction

Name: _____

#	4	question	Answer	0	<--score
# 1	400	Hz is the tone generated by a pair of speakers 4 meters apart. What is the wavelength of the sound if V_{sound} is 340 m/s?		0	
# 2	20	meters is the distance to the central maximum. What is the distance from this point to each speaker?		0	
# 3	20	you now move sideways until you hear no tone: what is the difference (meters) in path length to each speaker?		0	
# 4	20	you continue until the sound is loud again, what is the path difference now?		0	
# 5	60	cm is the separation between two bright dots on a screen 4 meters away using a laser and a grating with $d = 1.89 \text{ EE-6}$ meters. What is the wavelength of the laser?		0	
# 6	60	what angle is this forming?		0	
# 7	60	what will be the distance in meters from the central maximum to the next bright spot?		0	
# 8	60	what will be the angle of the first dark spot?		0	
# 9	60	what distance (meters) will this be on the screen?		0	
# 10	60	If the wavelength of the laser were doubled, how many meters would be the distance from the CM to the first bright spot?		0	

Extra Credit: