

# Lab 11 - Noise

Due Nov 8 at 8am	Points 8	Questions 8	Time Limit None
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## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	172 minutes	6 out of 8

⚠️ Correct answers are hidden.

Score for this quiz: 6 out of 8  
Submitted Nov 3 at 4:17pm  
This attempt took 172 minutes.

Question 1

1 / 1 pts

A 20 ton drop hammer has an impact noise so loud that your sound meter “pegs” when attempting to take a reading at the operator’s hearing zone. Backing up and taking readings until the meter responds without going off-scale you find that the SPL is 143 dB at 50 feet away. The drop hammer is located on a concrete floor adjacent to a concrete wall. What is the SPL at the operator’s workstation 3 feet from the drop hammer?

☐ 170

☒ 167

☐ 182

☐ 164

Question 2

1 / 1 pts

What is the SPL when two machines in close proximity to each other are operating at 95 dBA and 105 dBA respectively?

☐ 107

☒ 105

☐ 108

☐ 106

### Question 3

1 / 1 pts

Given an exposure profile of 1 hour at 90 dBA, 1 hour at 95 dBA, 4 hours at 88 dBA, and 1 hours at 100 dBA, what is the employee's % Dose for OSHA?

☐ 135

☒ 125

☐ 120

☐ 115

### Question 4

1 / 1 pts

The noise in a large printing facility which contains four operating printers measures 106 dB. If the four printers are the main source of noise and are equidistant from the measuring instrument, what is the dBA of each unit?

☐ 103

☐ 109

☐ 93

☒ 100

### Question 5

1 / 1 pts

What is the permissible OSHA exposure period in hours for a constant 97 dBA sound source?

☐ 4

☐ 3.5

☐ 2.5

☒ 3

Incorrect

### Question 6

0 / 1 pts

The measured noise dose of a worker is 68% for the morning 4 hour shift. If the dosimeter was recording using the OSHA criteria, what was the average SPL in dB?

☐ 92.2

☒ 78.4

☐ 81

☐ 76

**Question 7****1 / 1 pts**

The Space-X Falcon 9 rocket produces 1,710,000 lbf of thrust  $\approx$  to 34,000,000 horsepower  $\approx$  26 gigawatts of energy. The Banana Creek Launch Viewing Area is located 6,250 meters from the Launch Complex 39A (LC-39A). What is the SPL at the viewing area? Hint: convert watts to dB SWL, then calculate SPL with the appropriate DI.

☒ 140☐ 98☐ 224☐ 120**Incorrect****Question 8****0 / 1 pts**

The measured full-shift noise dose of a worker is 72%. If the dosimeter was recording using the ACGIH TLV criteria, what was the average SPL in dB?

☐ 84.4☒ 81.6☐ 82.5☐ 83.6Quiz Score: **6** out of 8