Assignment 3
Date handout: 19/12/2023
Name: Elisabeth and Joshua
Deadline: 12/01/2024

Assignment 3

Read and study chapter 9 of the lecture notes on Aircraft Noise and Emissions. Hand in a concise report, documenting and discussing the results and outcomes of the questions below. Add to the report a listing of the program used.

- Develop a MATLAB program that calculates the power spectral density (psd in dB/Hz) for one airframe noise component: clean wing or slat or flap or main landing gear
- Compare with provided measured psd (will be provided on Brightspace)
- Integrate both modelled and measured psd and compare total modelled OSPL (due to airframe noise) and total measured OSPL

Aircraft:	Boeing-737
speed:	81 m/s
wing area	130 m^2
wing span	34 m
flap area	18 m^2
flap span	17 m
tire diameter	1.1 m
number wheels/boggie	2
number of boggies	2