

ACS 547

1 of 2

MONDAY, FEBRUARY, 16, 2015

NOTES: (HOMEWORK)

TRANSMISSION LOSS - 2 ROOMS W/ DOOR.

(1) WORK EXAMPLE PROBLEM.

SLIDE 5 - AVERAGE MAGNITUDE & INTENSITY.  
(MEAN-SQUARE)

(2) PAHY & GARDINO TEXTBOOK.

SLIDE 7 - FIND COMMENT (13:25).

SOUND LEVEL IN ROOM DROPS/LOWERS.

(3) "SOUND & STRUCTURAL VIBRATION"

SLIDE 8 (EST.) 94 dB (LEFT) | 75 dB (RIGHT).

(CALC) 85.5 dB | 64.5 dB.  $TL = 19$  dB.

SLIDE 9 SEE COMMENT BY ROOM CONSTANT, R.

SLIDE 10. DESCRIPTION OF LEVELS.

CHECK SIMPLE LOCATIONS

FIND COMMENT.	Room 1	Room 2	(22)
	?	- "ANOTHER" SOURCE.	

SLIDE 11

- (1) EQUATION FOR NOISE REDUCTION.
- (2)  $TL \rightarrow$  UNKNOWN  $\rightarrow$  USED AS VARIABLE

HOMEWORK.

DETERMINING  $TL$  @ 6 FREQUENCIES  
- CALCULATE IN OCTAVE BANDS (6).

DONE IN EXCEL! OR MATLAB.

SLIDE 12

NOTE(S) CONTINUED.

SLIDE 13 - STIFFNESS/COMPLIANCE (MASS).  
(4)

GLASS PANEL W/PUTTIED MOUNTING  
RUBBER GASKET.

SLIDE 14

ALL (EVERY) LINEAR  
THING

SLIDE 15  
SLIDE 16 → HEAVY THINGS, HIGH RESONANT FREQ.  
STIFFNESS OF MOUNT.

@ RESONANCE,  $\delta$  (DAMPING) IS IMPORTANT  
↑  
ETA