

2011 Summer Workshop, College of the Holy Cross
Foundational Mathematics Concepts for the High School to College Transition

Day 2 – July 10, 2012

Reverberation Time: Design an acoustic space.

The goal of this activity is to provide a prose sketch for the design of a problem to give to your students about reverberation time. Here are some guidelines:

- It need not be self-contained. That is, you can assume you will provide background orally or in a separate or first section of the handout.
- It should pose an easily understood question about the acoustic design of a physical space.
- It should provide any equations the students might need.
- It should provide an example of how the equations might be used.
- It should ask for an explanation of the design and intermediate calculations leading to the final calculation of reverberation time.
- It should ask for the final result and that it satisfy any design parameters.
- It should explain why design choices were made and some alternatives were not chosen.