**Programming with Sounds, Part 1**

**Exercise 1**  
Write a function that doubles the amplitude of the sound (i.e., doubles the value of each sample). Test your function using the sound `gettysburg10.wav`.

What effect does doubling the amplitude have?

What would be a name for the function you just wrote?

**Exercise 2**  
Repeat Exercise 1, except you should halve the amplitude of the sound. Test your function using the sound `gettysburg10.wav`.

What effect does halving the amplitude have?

What would be a name for the function you just wrote?

Check:

- proper documentation for each function (name, purpose, parameters, return value, assumptions, side effects)
- each function works properly on the sound specified in the exercise
- each function works properly with other sounds
- all written questions answered
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Exercise 3

In Exercises 1 and 2 you doubled or halved the volume of a sound. Make these functions more useful by adding a parameter to indicate the desired volume as a percentage, e.g., 50 would halve the volume (50%), 200 would double the volume (200%), 70 would lower the volume to 70% of the original, and 0 would mute the sound.

What happens if you make the sound too loud?

Check:
☐ proper documentation for each function (name, purpose, parameters, return value, assumptions, side effects)
☐ each function works properly on the sound specified in the exercise
☐ each function works properly with other sounds
☐ all written questions answered