List Questions

The following 4 questions ask you to write a function to calculate an average based on a list of individual scores.

1. Write a function `avg(grades)` where grades is a list of grades of some arbitrary length. The function returns the regular numerical average (mean).

2. Write a function `avg(grades)` where n is a list of grades of some arbitrary length. The function returns the average after the lowest grade is dropped.

3. Write a function `avg(n)` where n is a list of grades of length three. Calculate and return the weighted average where the highest grade counts 50%, the lowest grade 10% and the other 40%.

4. Write a function `avg(grades,weights)` to calculate and return a weighted average. “grades” is a list of grades of some arbitrary length and weights is a list of floating point numbers such that weight[i] is the percentage with grade[i] in the weighted average.

5. Write a function `random_list(size,from,to)` that creates and returns a list of size “size” containing random integers in the [from,to].

6. Write a function `random_list(size,from,to)` that creates and returns a list of size “size” containing **unique** random integers in the [from,to].

7. Write a function `mysort(x)` that sorts a list of integers from smallest to largest. You **cannot** use the built-in sort function!

8. Write a function `mysort(x)` that sorts a list of integers from largest to smallest. You **cannot** use the built-in sort function!