Implement the latent Dirichlet allocation (LDA) model to infer the topics in a set of documents. Build a function `lda_solve()` that takes one argument:

1. `documents` - list (of length M) of lists (of length N) of strings

and returns:

1. `phi` - numpy array of size (k, V)

2. `vocabulary` - list (of length V) of strings

Put your function in a file titled `hw11_solution.py`.

Run `hw11_evaluate.py`, making sure that your solution file is on the Python path. If you're unsure whether the result is satisfactory, ask the instructor or TA.