

Homework 8, Morally due Mon Apr 16, 3:30PM

Throughout this HW:

- Let  $f(m, s)$  be the muffin function (from the talk Bill gave on Muffins).
  - To prove that, say  $f(11, 5) = \frac{13}{30}$  you would need to BOTH give a PROCEDURE that allocates 11 muffins to 5 people with smallest piece  $\frac{13}{30}$  AND prove that there is no BETTER procedure.
  - You CANNOT use the Floor-Ceiling Theorem, though you can use the same kind of reasoning in a particular case.
1. (50 points) Prove  $f(9, 5) = \frac{2}{5}$ .
  2. (50 points) Prove  $f(7, 6) = \frac{1}{3}$ .