

DEFINE THE COOLING FUNCTION RECURSIVELY

A freshly brewed cup of coffee is  $200^{\circ}F$ . The room temperature is  $70^{\circ}F$ , and the temperature of the coffee cools to  $180^{\circ}F$  in 5 minutes. Write the cooling function for this situation recursively.

RULES

- (1) You must be an undergraduate enrolled in classes at USC-Columbia.
- (2) Write your solutions clearly and show all of your work.
- (3) Staple all sheets together.
- (4) Bring your solutions to the math office (LC 411) and drop it in the box provided.
- (5) **Include your name and email address.**
- (6) Sign the drop-off sheet to record your submission.

**Look for a new problem on the 15th of every month!**