

# EES 351: Exercise (Free)

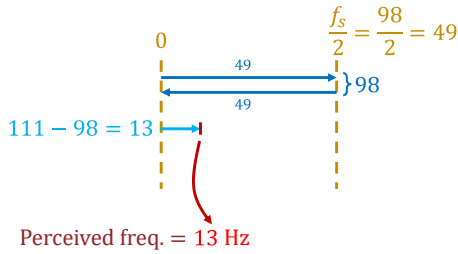
## Instructions

1. Work alone or in a group of no more than three students. **The group cannot be the same as any of your former groups after the midterm.**
2. Only one submission is needed for each group.
3. You have two choices for submission:
  - (a) Online submission via Google Classroom
    - PDF only.
    - Only for those who can directly work on the posted files using devices with pen input.
    - Paper size should be the same as the posted file.
    - No scanned work, photos, or screen capture.
    - **Your file name should start with the 10-digit student ID of one member.** (You may add the IDs of other members, exercise #, or other information as well.)
  - (b) Hardcopy submission
4. **Do not panic.**

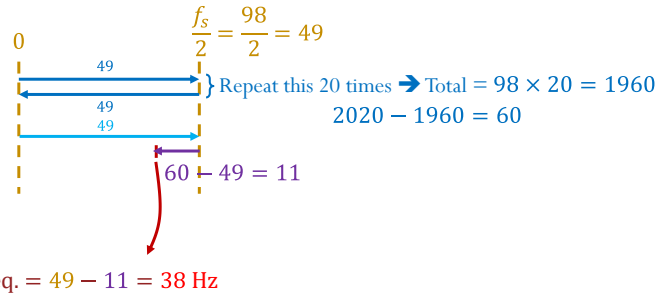
Date: 18 / 11 / 2020			
Name			ID <small>(last 3 digits)</small>

1. In each part below, for the given value of  $f_0$ , find the “perceived” frequency of  $\cos(2\pi f_0 t)$  when sampling rate  $f_s$  is 98 samples/sec.

a)  $f_0 = 111$

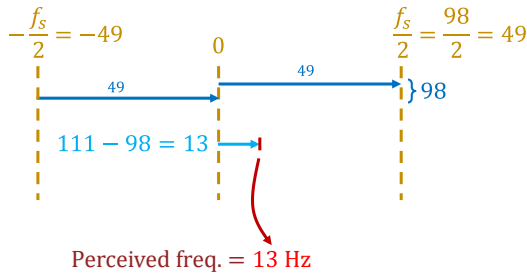


b)  $f_0 = 2020$



2. In each part below, for the given value of  $f_0$ , find the “perceived” frequency of  $e^{j2\pi f_0 t}$  when sampling rate  $f_s$  is 98 samples/sec.

a)  $f_0 = 111$



b)  $f_0 = 2020$

