1. Fill in your name on side 2 of the scoring sheet (Last name first!)

2. Fill in your 8-digit person number on your scoring sheet.

3. Fill in circle 1 under GRADE OR EDUCATION on your scoring sheet. This is your test number! You will receive a ZERO if you do not indicate your test number.

- For each question, choose THE BEST ANSWER and mark the corresponding answer on the scoring sheet.

- There is only 1 best answer per question.
1. The half-tone pattern in this image could be minimized with Fourier transform filtering. (T/F)

Given the data set parameters:
Sample Rate=1000 samples/sec
Number of Samples = 5,000

2. The lowest frequency in a Fourier transform of this data set would be
   a. 1000 Hz       d. 0.2 Hz
   b. 500 Hz        e. none of the above
   c. 5 Hz

3. The highest frequency in a Fourier transform of this data set would be
   a. 1000 Hz       d. 0.2 Hz
   b. 500 Hz        e. none of the above
   c. 5 Hz

4. The frequency resolution or spacing of this data set would be:
   a. 1000 Hz       d. 0.2 Hz
   b. 500 Hz        e. none of the above
   c. 5 Hz

5. If the input signal to this data set was a 100 Hz sine wave there would be no amplitude ambiguity of the input signal frequency content in the Fourier transform.
   a. True
   b. False