Assignment 5
Due: November 2, 9:30 am

1. (4 points) Suppose f:R->Z where f(x)= ⌈2x-1⌉ . Draw the graph of f.

2. (4 points) For each of the following sequence, find a formula that generates sequence a_0, a_1, a_2, a_3, ... that begins with the given list.

   a. 15,20,25,30,35,...

   b. 2,4,16,256,65536,...

3. (4 points) Find the value of each of these sums.

   a. $\sum_{i=2}^{7}(-3 \times 2^i)$

   b. $\sum_{i=0}^{3}\sum_{j=2}^{4}(2i + 3j + 1)$

4. (2 points) Show that the union of two countable sets is countable.