1. (2 points) Circle the only one of the following three sequences which could possibly be arithmetic, and then find a formula for the 4th term in that sequence.

   (a) 2, 10, 50, 250, 1250, …
   (b) 1, 22, 333, 4444, 55555, …
   (c) 2, 6, 10, 14, 18, …

2. (2 points) Circle the only one of the following three sequences which could possibly be geometric, and then find a formula for the 4th term in that sequence.

   (a) 2, 10, 50, 250, 1250, …
   (b) 1, 22, 333, 4444, 55555, …
   (c) 2, 6, 10, 14, 18, …
3. (2 points) How many terms are there in the following arithmetic sequence?

3, 8, 13, 18, 23, ..., 803

4. (4 points) For the month of June, Jared has agreed to switch from the Subway diet to the Ben & Jerry’s diet. On this new diet, he will have:

1 scoop of ice cream on June 1,
2 scoops of ice cream on June 2,
3 scoops of ice cream on June 3,
4 scoops of ice cream on June 4,
;
29 scoops of ice cream on June 29
30 scoops of ice cream on June 30.

What is the total number of scoops of ice cream that Jared will have in the month of June? Be sure to simplify your answer (that is, do not leave it as a sum or product).