1. For each sequence, identify the next two terms. Write an explicit and recursive rule to generate the sequence.

a. 4, 9, 14, 19, ...

b. 2, 8, 32, 128, ...

c. 1, 1, 2, 3, 5, ... (Hint: This is a special sequence...can you name it and write a recursive rule?)

2. Determine if the following sequences are arithmetic or geometric. Write an explicit and recursive formula for each.

a. 1, $\frac{1}{2}, \frac{1}{4}$, $\frac{1}{8}$, ... b. -7, -4, -1, 2, ... c. 100, 87, 74, 61, ...

3. For each sequence, write an explicit formula and then calculate the specified sum.

a. 2, 9, 16, 23, ...; sum of the first 18 terms

b. -6, -2, 2, 6, ...; sum of the first 21 terms

c. 45, 36, 27, 18, ...; sum of the first 11 terms