Work in the space provided, and staple this page to the back of your book-assigned problems.

1. Consider the sequences below:

    (a) $1, 3, 5, 7, \ldots$

    (b) $1, 4, 9, 16, \ldots$

    (c) $15, 2, 4, 15, 2, 4, 15 \ldots$

    (d) $4, 7, 10, 13, \ldots$

    (e) $6, 4, 2, 0, \ldots$

    (f) $0.5, 2, 8, 32, \ldots$

    (g) $8, 4, 2, 1, \ldots$

    (h) $-2, 1.5, -2, 1, -2, 1.5, -2, \ldots$

    (i) $5, 6, 8, 11, \ldots$

    (j) $1, 3, 4, 7, 11, 18, \ldots$

    (k) $2, 5, 11, 23, \ldots$

    (l) $5, -9, -4, -13, \ldots$

    Give the letter of each sequence that's arithmetic, and also write its explicit formula:

    Give the letter of each sequence that's geometric, and also write its explicit formula:

    Give the letter of each sequence that's "Fibonacci-type" (no other info needed):

2. Make up the first five terms of a sequence fitting each description below. (continues onto next two pages)

    (a) an arithmetic sequence with common difference $d = 6$ and first term equal to 8

    (b) an arithmetic sequence with common difference $d = -3$ and $a_1 = 8$

(c) an arithmetic sequence with common difference $d = 2$ and *third* term equal to 8

(d) an arithmetic sequence with common difference $d = -5$ and $a_3 = 8$

(e) an arithmetic sequence whose second term is 8 and whose fourth term is 20

(f) an arithmetic sequence whose third term is 12 more than the first

(g) an arithmetic sequence whose second term is 10 times its first

(h) an arithmetic sequence where the third term is the negative of the first

(i) a geometric sequence with common ratio $r = 3$ and $a_1 = 0.4$

(j) a geometric sequence with common ratio $r = 1/3$ and first term equal to 54

(k) a geometric sequence with common ratio equal to 10 and $a_3 = 150$

(l) a geometric sequence with common ratio equal to 1/4 and *third* term equal to 12

(m) a geometric sequence whose fourth term is 5 and where a_3 is 25 more than a_4

(n) a Fibonacci-type sequence whose third and fourth terms are equal

(o) a Fibonacci-type sequence whose first three terms add up to 10

(p) a Fibonacci-type sequence whose second term is 5 less than the first

3. (a) Write an explicit formula for the sequence in Part #2a and use that to find the 107th term of the sequence.

(b) Repeat the task above for the sequence in Part #2b.

(c) Repeat for sequence in Part #2i.

(d) Finally, repeat for sequence in Part #2k.