Different Types of Sequence

Each of these sequences is arithmetic (linear). Find the next three terms.

(a) $11, 13, 15, 17, \ldots$

(b) $6, 11, 16, 21, \ldots$

(c) $4.6, 4.9, 5.2, 5.5, \ldots$

(d) $23, 19, 15, 11, \ldots$

(e) $9, 8.5, 8, 7.5, \ldots$

(f) $-3, -9, -15, -21, \ldots$

(a) 19, 21, 23

(b) 26, 31, 36

(c) 5.8, 6.1, 6.4

(d) 7, 3, -1

(e) 7, 6.5, 6

(f) -27, -33, -39

Each of these sequences is geometric. Find the next three terms.

(a) $2, 4, 8, 16, \ldots$

(b) $6, 18, 54, 162, \ldots$

(c) $10, 50, 250, 1250, \ldots$

(d) $160, 80, 40, 20, \ldots$

(a) 32, 64, 128

(b) 486, 1458, 4374

(c) 6250, 31250, 156250

(d) 10, 5, 2.5

Each of these sequence is quadratic. Find the next three terms.

(a) $3, 4, 6, 9, \ldots$

(b) $6, 8, 12, 18, \ldots$

(c) $1, 7, 14, 22, \ldots$

(d) $100, 97, 92, 85, \ldots$

(a) 13, 18, 24

(b) 26, 36, 48

(c) 31, 41, 52

(d) 76, 65, 52

For each of these sequences:

(i) decide whether they are arithmetic (linear), geometric or quadratic

(ii) find the next two terms

(a) $3, 6, 12, 24, \ldots$

(b) $7, 14, 21, 28, \ldots$

(c) $10, 7, 4, 1, \ldots$

(d) $8, 9, 11, 14, \ldots$

(e) $2, 5, 12.5, 31.25, \ldots$

(f) $5, 7, 11, 17, \ldots$

(a) geometric 48, 96

(b) arithmetic 35, 42

(c) arithmetic -2, -5

(d) quadratic 18, 23

(e) geometric 78.125, 195.3125

(f) quadratic 28, 38

A sequence starts 2, 4. Write down the next three terms in the sequence if it is (i) arithmetic, (ii) geometric and (iii) quadratic.

(i) 6, 8, 10

(ii) 8, 16, 32

(iii) possibly 7, 11, 16 or 8, 16, 24 or others...