The Problem Set

In finding sums and terms, show that you're using formulas rather than just simply doing all the work on your calculator. Of course, a calculator double-check is a fun way to check to see if your theory is on the mark.

1. Find the values of the first 6 terms of these sequences:

(a) $a_n = 3 + 2n^2$
(b) $b_n = n\,(n+2)$
(c) $c_n = n^n$
(d) $f_n = (-1)^{n-1}\dfrac{n+1}{n^2}$

2. For each of the following sequences, (i) give the next 3 terms of the sequence and (ii) give a function definition of the sequence.

(a) The sequence a_n starts as 1, 4, 9, 16, 25, . . .

(b) The sequence f_n starts as 1/2, 2/3, 3/4, 4/5, . . .

(c) The sequence d_n starts as 3, 8, 13, 18, 23, ...