Sum of an Arithmetic Series

Find the sums of the series given the first term a, common difference d and number of terms n.

(a) $a = 5, d = 2, n = 10$

(b) $a = 5, d = 2, n = 20$

(c) $a = 14, d = 2, n = 20$

(d) $a = 14, d = 3, n = 10$

(e) $a = 14, d = -3, n = 10$

(f) $a = 10, d = -2, n = 20$

(g) $a = 4.2, d = 0.2, n = 20$

(h) $a = 4.2, d = -0.2, n = 50$

(a) 140

(b) 480

(c) 660

(d) 275

(e) 5

(f) −180

(g) 122

(h) −35

(a) Find the sum of the first 10 terms of the sequence 1, 3, 5, 7,...

(b) Find the sum of the first 10 terms of the sequence 2, 4, 6, 8,...

(c) Find the sum of the first 10 terms of the sequence 2, 5, 8, 11,...

(d) Find the sum of the first 20 terms of the sequence 8, 5, 2, -1,..

(e) Find the sum of the first 20 terms of the sequence 20, 20.5, 21, 21.5,...

(f) Find the sum of the first 50 terms of the sequence 10, 20, 30, 40,...

(a) $a = 1$ $d = 2$ $n = 10$
  100

(b) $a = 2$ $d = 2$ $n = 10$
  110

(c) $a = 2$ $d = 3$ $n = 10$
  155

(d) $a = 8$ $d = -3$ $n = 20$
  −410

(e) $a = 20$ $d = 0.5$ $n = 20$
  495

(f) $a = 10$ $d = 10$ $n = 50$
  12750

(a) The first term of a sequence is 5. The sum of the first 20 terms is 860. Find the common difference.

(b) The first term of a sequence is 25. The sum of the first 20 terms is 310. Find the common difference.

(c) The common difference of a sequence is 0.6. The sum of the first 50 terms is 1335. Find the first term.

(a)
  $d = 4$

(b) $d = 1$

(c) $a = 12$