

Questions

Find the sum of each of the following arithmetic series.

- 1 The first 5 terms of 6, 10, 14, ...
- 2 The first 30 terms of 17, 18, 19, ...
- 3 The first 24 terms of 100, 95, 90, ...
- 4 The first 51 terms of $\frac{1}{2}$, 1, $1\frac{1}{2}$, ...
- 5 The first 27 terms of 43, 38, 33, ...
- 6 $14 + 11 + 8 + \dots - 1 - 6$
- 7 $34 + 45 + 56 + \dots + 276$
- 8 $85 + 78 + 71 + \dots - 559$
- 9 $-5 + -2\frac{1}{3} + \frac{1}{3} + \dots + 83$
- 10 All positive even numbers less than 200
- 11 All numbers between 148 and 302 that are divisible by 5
- 12 The first $3n - 2$ terms of 1, 7, 13, ...
- 13 The first $n + 1$ terms of 3, 5, 7, ...
- 14 The first $2n - 5$ terms of 10, 7, 4, ...
- 15 How many terms of the series $5 + 8 + 11 + \dots$ need to be added together to equal 549?
- 16 How many terms of the series $120 + 114 + 108 + \dots$ need to be added together to equal 990?
- 17 If the 1st term of an arithmetic sequence is 43 and the 12th term is -12 , find the sum of the first 20 terms.
- 18 If the 3rd term of an arithmetic sequence is 1941 and the 22nd term is 1371, find the sum of the first 14 terms.
- 19 If the 7th term of an arithmetic sequence is 15 and the 11th term is 23, find the sum of the first 50 terms.

Solutions

- A 945
 C 18
 E 11 or 30
 F -594
 G 1326
 H 6975
 I 25 284
 L 663
 M $-22\ 041$
 N $27n^2 - 42n + 16$
 O 2600
 P -90
 R 3565
 S $-6n^2 + 53n - 95$
 T 9900
 U $n^2 + 4n + 3$
 V 70
 W 1020
 Y -11