

- (32) The last term of a series=157, common difference=3, and number of terms=51; find the sum of the series. Ans. $S=4182$.
- (33) Given the last term of a series=97, number of terms=11, sum of the series=2489, to find the common difference. Ans. $d=20\frac{1}{2}$.
- (34) A person spends $\frac{1}{2}$ d. more on the 2nd January than on the first; $\frac{1}{2}$ d. more on the 3rd than on the 2nd, and so on; at the end of the year he finds that he has spent £155 2s. 6d., what was his outlay on the 31st December. Ans. 1=16s. 1d.
- (35) Find the number of terms in the series of which 18000 is the sum, 10 the common difference, and 595 the last term. Ans. $n=60$.
- (36) Find the sum of the odd numbers from 1 to 99 inclusive. Ans. $S=2500$: Also of the even numbers from 2 to 100 inclusive. Ans. $S=2550$.
- (37) Given the sum of a series=2625, first term=5, and last term=245, to find the common difference. Ans. $d=12$.
- (38) Find the first term of the series of which the sum=2288, last term=95, and common difference=2. Ans. $a=9$.
- (39) What is the last term of the series of which the first term=-5, the sum=196, and the common difference=11. Ans. $l=61$.
- (40) Required the sum of the series 1, 2, 4, 8, 16, &c. to 10 terms. Ans. $S=1023$. Required the sum of the series 2, 6, 18, 34, &c. to 8 terms. Ans. $S=6560$.
- (41) What is the first term of the geometrical series of which the sum=682, the number of terms=5, and the common ratio=4? Ans. $a=2$.
- (42) Required the last term of a series of which the first term=3, the number of terms=10, and the common ratio=8. Ans. $l=402653184$.