

## UNIT 8: IDENTIFY AND WORK WITH SIMPLE ARITHMETIC SERIES

### Exercise 8.1



Work on your own. Do the exercises as classwork or homework.

1. An arithmetic sequence has a first term of 10, and a common difference of 4. Calculate the 18<sup>th</sup> term.
2. An arithmetic sequence has 280 terms. The first term is 4 and the last term is 841. Calculate the common difference the series.
3. An arithmetic series starts 7; 13; 19 and has 10 terms.
  - a. Find the common difference.
  - b. Find the last term
4. The first term of an arithmetic sequence is 4 and the common difference is 5. Find the term number 10.
5. An arithmetic sequence has a common difference of 4, and the 6<sup>th</sup> term is 28. Find the first term
6. An arithmetic sequence has a first term of 2, and the common difference is 3.
  - a. Find the term number 17
  - b. The last term is 86. How many terms are there in the sequence?
7. An arithmetic sequence has a first term of 2, a common difference of 6 and it has 29 terms. Calculate the last term of the series.
8. An arithmetic sequence has 170 terms. The first term is 5 and the last term is 1357. Calculate the common difference of the series.
9. An arithmetic sequence starts 2, 7, 12 and has 210 terms.
  - a. Find the common difference
  - b. Find the last term.
10. The first term of an arithmetic sequence is 1 and the last of 15 terms is 57. Find the common difference.
11. An arithmetic sequence has a common difference of 2 and the first term is 18. Find the 12<sup>th</sup> term.
12. An arithmetic sequence has a first term of 2, and the common difference is 4.
  - a. Find the term number 14
  - b. Find the sum of the 14<sup>th</sup> plus the 16<sup>th</sup> terms