

Sequences and Series

5-9-08

1. The 5th and 9th terms of an arithmetic sequence are -5 and -17, respectively. Find the first term and a recursive rule for the n th term.

2. Write the sum using summation notation, assuming the suggested pattern continues.
$$2 + 5 + 8 + 11 + \dots + 29$$

3. Find the sum of the arithmetic sequence.
$$2, 4, 6, 8, \dots, 70$$

Sequences and Series

5-9-08

4. Find a recursively rule and an explicit rule for the nth term.

2, 6, 18, 54, 162,

5. For the following arithmetic sequence,

-4, 1, 6, 11,

Find:

- the common difference,
- the tenth term,
- a recursive rule for the nth term, and
- an explicit rule for the nth term.

Sequences and Series

5-9-08

6. For the following geometric sequence,

3, 6, 12, 24,

Find:

- a. the common ratio,
- b. the eighth term,
- c. a recursive rule for the n th term, and
- d. an explicit rule for the n th term.