Arithmetic Sequences

1. For the sequence:

6, 17, 28, 39, …

1. Prove that the sequence is an arithmetic sequence
2. Find the formula for the general term
3. Determine the 45th term of the sequence
4. Determine if 761 is a term in the sequence

2. For the sequence:

87, 83, 79, 75, …

1. Prove that the sequence is an arithmetic sequence
2. Find the formula for the general term
3. Determine the 30th term of the sequence
4. Which term of the sequence is −297?

3. An arithmetic sequence is defined by: .

a. Calculate  and *d*.

b. Determine the 35th term

c. What term of the sequence is the first term greater than 450?

4. Determine the general term  of an arithmetic sequence with  and .

5. Consider the sequence: 

a. Determine the formula for the general term.

b. Which term of the sequence is ?