

## 9.2 Arithmetic Sequence Homework Block wk 7

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1. Find the 21<sup>st</sup> term of  
4,9,14,19,...

4. Find the 31<sup>st</sup> term of  
3,11,19,...

7. How many terms are  
in the sequence  
44,36,28,...,-380?

2. Find the 3<sup>rd</sup> term in an  
arithmetic sequence if  
 $a_{10} = 41$ ;  $a_{15} = 61$

5. Find  $n$  for the  
sequence which has  
 $a_n = 618$ ;  
 $a_1 = 18$ ;  $d = 6$

8. 24,32,40,48,...find  $a_{507}$

3. Find  $a_{21}$  if  $a_7 = -19$ ;  
and  $a_{10} = -28$

6. Find  $a_{1000}$   
17,7,-3,...

9. Find a formula for the  
 $n$ th term of the  
sequence -6,-1,4,9,...

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10. 100,98,96,... find  $a_{25}$

14. Find the 300<sup>th</sup> term of the sequence 2,5,8,11,...

11. Find the 79<sup>th</sup> term for the sequence that has  $a_1 = 231$  and  $d=-9$

15. How many terms are in the sequence 25,33,41,...,145?

12. Find the 40<sup>th</sup> term of an arithmetic sequence that has  $a_8 = 60$ ;  $a_{12} = 48$

13. Find a formula for the  $n$ th term of the sequence 30,20,10,0,...

### **ANSWERS:**

1. 104 2. 13 3. -61 4. 243

5. 101 6. -9973 7. 54

8. 4072

9.  $a_n = -6 + 5(n - 1)$

10. 52 11. -471 12. -36

13.  $a_n = 30 - 10(n - 1)$

14. 899 15. 16