

Algebra II  
Sequences Extra

Name \_\_\_\_\_

Write the first five terms of the sequence. State whether it is arithmetic or not and if it is, state the common difference.

1.  $a_n = n^2 + 4$

2.  $t_n = 4 - 5n$

3.  $a_n = -n^2 + 3$

Write a formula for the nth term of the arithmetic sequence.

4. 37, 29, 21, 13, .....

5.  $a_{23} = 107, d = 4$

6.  $a_{15} = 28, a_{24} = 34$

Find the following sums.

7.  $\sum_{i=1}^{20} 9i$

8.  $\sum_{i=13}^{37} \frac{2i}{i^2 - 3}$

9.  $0 + -4 + -8 + -12 + \dots$   
First 20 terms

10.  $0.2 + 2.3 + 4.4 + 6.5 + \dots$   
First 20 terms

11. Find the sum of the positive even integers less than 250. Show work.