

Algebra 2  
Arithmetic Series

Name: \_\_\_\_\_  
Period: \_\_\_\_\_

1. pg. 521 (1-7, 9a, 10a-c, 11)

Find the sum

2.  $3+7+11+\dots+u_{20}$       3.  $0.5+3+5.5+\dots+u_{50}$       4.  $100+93+86+\dots+u_{40}$   
5.  $8+10.5+13+\dots+48$       6.  $5+8+11+\dots+101$       7.  $50+49.5+49+\dots+(-10)$

Evaluate

8.  $\sum_{k=1}^{10}(2k+5)$       9.  $\sum_{b=1}^{15}(b-50)$       10.  $\sum_{h=1}^{20}\left(\frac{h+3}{2}\right)$

11. Given an arithmetic series, find  $S_7$  if  $u_1 = 5$  and  $u_7 = 53$ .  
12. Given an arithmetic series, find  $n$  if  $S_n = 172$ ,  $u_1 = 4$  and  $u_n = 39$ .  
13. Given an arithmetic series, find  $u_{10}$  if  $S_{10} = 177.5$  and  $u_1 = 2$ .

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