## Algebra 2 Class Worksheet \#5 Unit 9 page 1

Solve each of the following problems. Show your work neatly organized.

1. Find the sum of the first 60 terms of the sequence defined by $a_{n}=5 n+2$.
2. Find the sum of the first 40 terms of an arithmetic sequence in which $\mathrm{a}_{1}=3$ and $\mathrm{d}=5$.
3. Find the sum of the first 35 terms of the sequence defined by $a_{n+1}=a_{n}+4$ where $a_{1}=10$.
4. Find the sum of the first 60 terms of the sequence $1,1.3,1.6,1.9, \ldots$
5. Evaluate the series $5+8+11+14+\ldots+200$.

## Algebra 2 Class Worksheet \#5 Unit 9 page 2

Solve each of the following problems. Show your work neatly organized.
6. Evaluate: $\sum_{i=1}^{60}(3 i+7)$
7. An object accelerates in such a way that it travels 2 feet during the first second, 5 feet during the next second, and 8 feet during the third second. If this pattern continues, then how far will the object have moved during the first 30 seconds?
8. A job has a starting salary of $\$ 29,000$ with a guaranteed increase of $\$ 500$ per year. Find the total salary for the first 18 years.

