## Algebra II Worksheet \#1 Unit 9 Selected Homework Solutions

Use the given formula to write the first five terms of each of the following sequences.

1. $a_{1}=5 ; a_{n+1}=a_{n}+3$ 5, 8, 11, 14, 17
2. $a_{1}=1 ; a_{n+1}=2 a_{n}$
$1,2,4,8,16$
3. $a_{n}=3 n+5$

8, 11, 14, 17, 20
8. $a_{n}=4\left(0.5^{n}\right)$
$2,1,0.5,0.25,0.125$
10. $a_{n}=0.5 n(n+1)$

1, 3, 6, 10, 15

Write a recursive formula for each of the following sequences.
11. $3,6,9,12, \ldots$

$$
a_{1}=3 ; a_{n+1}=a_{n}+3
$$

14. $2,4,8,16,32, \ldots$

$$
a_{1}=2 ; a_{n+1}=2 a_{n}
$$

Write an explicit formula for each of the following sequences.
17. $7,11,15,19, \ldots$

$$
a_{n}=4 n+3
$$

19. $1,-3,9,-27,81, \ldots$

$$
a_{n}=(-3)^{n-1}
$$

