Name $\qquad$ Date $\qquad$ Pd $\qquad$

### 6.7 Extra Practice Worksheet

1 - 6: Write the first six terms of the sequence. Then graph the sequence.

1. $a_{1}=-2 ; a_{n}=-2 a_{n-1}$
2. $a_{1}=-4 ; a_{n}=a_{n-1}+3$
3. $a_{1}=4 ; a_{n}=1.5 a_{n-1}$

4. $a_{1}=14 ; a_{n-1}-4$


5. $a_{1}=-\frac{1}{2} ; a_{n}=-2 a_{n-1}$


6. $a_{1}=-3 ; a_{n}=a_{n-1}+2$


7-8: Write a recursive rule for the sequence.
7.

| $\boldsymbol{n}$ | 1 | 2 | 3 | 4 |
| :--- | :---: | :---: | :---: | :---: |
| $\boldsymbol{a}_{\boldsymbol{n}}$ | 324 | 108 | 36 | 12 |

8. 

| $\boldsymbol{n}$ | 1 | 2 | 3 | 4 |
| :--- | :--- | :---: | :---: | :---: |
| $\boldsymbol{a}_{\boldsymbol{n}}$ | 9 | 14 | 19 | 24 |

9-13: Write a recursive rule for the sequence.
9. $3125,625,125,25, \ldots$
10. $8,-24,72,-216, \ldots$
11. $7,13,19,25, \ldots$
12.

13.


14-16: Write an explicit rule for the recursive rule.
14. $a_{1}=4 ; a_{n}=3 a_{n-1}$
15. $a_{1}=6 ; a_{n}=a_{n-1}+11$
16. $a_{1}=-1 ; a_{n}=5 a_{n-1}$

17-19: Write a recursive rule for the explicit rule.
17. $a_{n}=6 n+2$
18. $a_{n}=(-3)^{n-1}$
19. $a_{n}=-2 n+1$

20 - 22: Write a recursive rule for the sequence. Then write the next two terms of the sequence.
20. $2,4,6,10,16,26, \ldots$
21. $1,3,-2,5,-7,12, \ldots$
22. 1, 2, 2, 4, 8, 32, ...

