

Name:

Date:

Period:

Show all your work on a separate piece of paper.

Find the first four terms in each sequence.

1. $a_n = \frac{2n+1}{n^3}$

3. $a_n = n^2 + 1$

2. $a_n = 3^{n-1}$

4. $a_n = \frac{n^3}{2n+1}$

Find the tenth term in each sequence.

5. $a_n = \frac{2n+1}{n^3}$

7. $a_n = (2n)^2$

6. $a_n = 4^{n-1}$

8. $a_n = (2n - 1)^2$

Find the first four terms in each sequence.

9. $a_n = a_{n-1} + 10$
 $a_1 = 29$

11. $a_n = a_{n-1} + n$
 $a_1 = -4$

10. $a_n = a_{n-1} \cdot 2$
 $a_1 = -1$

12. $a_n = \frac{2+a_{n-1}}{2}$
 $a_1 = 10$

Find the tenth term in each sequence.

13. $a_n = na_{n-1}$
 $a_1 = -1$

15. $a_n = a_{n-1} \cdot 3$
 $a_1 = -3$

14. $a_n = a_{n-1} + 10$
 $a_1 = 11$

16. $a_n = \frac{2+a_{n-1}}{2}$
 $a_1 = -14$

Write a recursive formula for each sequence.

17. 2, 4, 7, 11, 16, ...

19. 386, 365, 344, 323, ...

18. 15, 215, 415, 615, 815, ...

20. 0, -3, -6, -9, ...