

READY, SET, GO!

Name

Period

Date

READY

Topic: Finding the common difference

Find the missing terms for each arithmetic sequence and state the common difference.

1. 5, 11, _____, 23, 29, _____...

Common Difference = _____

3. 8, _____, _____, 47, 60...

Common Difference = _____

5. 5, _____, _____, _____, 25...

Common Difference = _____

2. 7, 3, -1, _____, _____, -13...

Common Difference = _____

4. 0, _____, _____, 2, $\frac{8}{3}$...

Common Difference = _____

6. 3, _____, _____, _____, -13 ...

Common Difference = _____

SET

Topic: Writing the recursive function

Two consecutive terms in an arithmetic sequence are given. Find the recursive function.

7. If $f(3) = 5$ and $f(4) = 8$...

$f(5) = \underline{\hspace{2cm}}$. $f(6) = \underline{\hspace{2cm}}$. Recursive Function: _____

8. If $f(2) = 20$ and $f(3) = 12$...

$f(4) = \underline{\hspace{2cm}}$. $f(5) = \underline{\hspace{2cm}}$. Recursive Function: _____

9. If $f(5) = 3.7$ and $f(6) = 8.7$...

$f(7) = \underline{\hspace{2cm}}$. $f(8) = \underline{\hspace{2cm}}$. Recursive Function: _____

Two consecutive terms in a geometric sequence are given. Find the recursive function.

10. If $f(3) = 5$ and $f(4) = 10$...

$f(5) = \underline{\hspace{2cm}}$. $f(6) = \underline{\hspace{2cm}}$. Recursive Function: $\underline{\hspace{10cm}}$

11. If $f(2) = 20$ and $f(3) = 10$...

$f(4) = \underline{\hspace{2cm}}$. $f(5) = \underline{\hspace{2cm}}$. Recursive Function: $\underline{\hspace{10cm}}$

12. If $f(5) = 20.58$ and $f(6) = 2.94$...

$f(7) = \underline{\hspace{2cm}}$. $f(8) = \underline{\hspace{2cm}}$. Recursive Function: $\underline{\hspace{10cm}}$

GO

Topic: Evaluating using function notation

Find the indicated values of $f(n)$.

13. $f(n) = 2^n$ Find $f(5)$ and $f(0)$.

14. $f(n) = 5^n$ Find $f(4)$ and $f(1)$.

15. $f(n) = (-2)^n$ Find $f(3)$ and $f(0)$.

16. $f(n) = -2^n$ Find $f(3)$ and $f(0)$.

17. In what way are the problems in #15 and #16 different?

18. $f(n) = 3 + 4(n - 1)$ Find $f(5)$ and $f(0)$.

19. $f(n) = 2(n - 1) + 6$ Find $f(1)$ and $f(6)$.