

## Ready, Set, Go!



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### Ready

Topic: Finding the constant difference

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

1. 5, 11, \_\_\_\_, 23, 29, \_\_\_\_...

Constant Difference = \_\_\_\_\_

2. 7, 3, -1, \_\_\_\_, \_\_\_\_, -13...

Constant Difference = \_\_\_\_\_

3. 8, \_\_\_\_, \_\_\_\_, 47, 60...

Constant Difference = \_\_\_\_\_

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

Constant Difference = \_\_\_\_\_

5. 5, \_\_\_\_, \_\_\_\_, \_\_\_\_, 25...

Constant Difference = \_\_\_\_\_

6. 3, \_\_\_\_, \_\_\_\_, \_\_\_\_, -13 ...

Constant Difference = \_\_\_\_\_

### Set

Topic: Determine recursive equations

**Two consecutive terms in an arithmetic sequence are given. Find the constant difference and the recursive equation.**

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: \_\_\_\_\_



**Go**

Topic: Evaluate using function notation

**Find each value.**

10.  $f(n) = 2^n$  Find  $f(3)$ .

11.  $f(n) = 5^n$  Find  $f(2)$ .

12.  $f(n) = (-2)^n$  Find  $f(3)$

13.  $f(n) = 3 + 4(n - 1)$  Find  $f(5)$  and  $f(6)$ .

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

Need Help? Check out these videos:

Arithmetic sequences <http://www.khanacademy.org/math/algebra/solving-linear-equations/v/patterns-in-sequences-1>

Function notation <http://www.youtube.com/watch?v=Kj3Aqov52TY>

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