Name: Sequences | 3.5



## Ready, Set, Go!

### 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* $f(4) = 8$. ...

$f(5)$ = _____. $f(6)$ = _____. Recursive Function: _____

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

$f(4)$ = _____. $f(5)$ = _____. Recursive Function: _____

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

$f(7)$ = _____. $f(8)$ = _____. Recursive Function: _____

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## 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