READY, SET, GO!   Name   Date

READY

Topic: Interpreting function notation

A) Use the given table to identify the indicated value for n. B) Then using the value for n that you determined in A, use the table to find the indicated value for B.

n	1	2	3	4	5	6	7	8	9	10
$f(n)$	-8	-3	2	7	12	17	22	27	32	37

1. $A)$ When $f(n) = 12$, what is the value of n?

   $B)$ What is the value of $f(n-1)$?

2. $A)$ When $f(n) = 17$, what is the value of n?

   $B)$ What is the value of $f(n-1)$?

3. $A)$ When $f(n) = 32$, what is the value of n?

   $B)$ What is the value of $f(n+1)$?

4. $A)$ When $f(n) = 2$, what is the value of n?

   $B)$ What is the value of $f(n+3)$?

5. $A)$ When $f(n) = 27$, what is the value of n?

   $B)$ What is the value of $f(n-6)$?

6. $A)$ When $f(n) = -8$, what is the value of n?

   $B)$ What is the value of $f(n+9)$?

SET
Topic: Comparing explicit and recursive equations

Use the given information to decide which equation will be the easiest to use to find the indicated value. Find the value and explain your choice.

7. Explicit equation: y = 3x + 7
   Recursive: $now = previous\ term + 3$

term #	1	2	3	4
value	10	13	16	

Find the value of the 4th term. _____

Explanation:

8. Explicit equation: y = 3x + 7
   Recursive: $now = previous\ term + 3$

term #	1	2	...	50
value	10	13	...	

Find the value of the 50th term._____

Explanation:

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9. The value of the 8th term is 78. The sequence is increasing by 10 at each step. Explicit equation: y = 10x – 2 Recursive: $now = previous\ term + 10$ Find the 20th term. _____ Explanation:	10. The value of the 8th term is 78. The sequence is increasing by 10 at each step. Explicit equation: y = 10x – 2 Recursive: $now = previous\ term + 10$ Find the 9th term. _____ Explanation:
11. The value of the 4th term is 80. The sequence is being doubled at each step. Explicit equation: $y = 5(2^x)$ Recursive: $now = previous\ term * 2$ Find the value of the 5th term. _____ Explanation:	12. The value of the 4th term is 80. The sequence is being doubled at each step. Explicit equation: $y = 5(2^x)$ Recursive: : $now = previous\ term * 2$ Find the value of the 7th term. _____ Explanation:

GO

Topic: Evaluating Exponential Equations

Evaluate the following equations when x = { 1, 2, 3, 4, 5 }. Organize your inputs and outputs into a table of values for each equation. Let x be the input and y be the output.

13. $y = 4^x$ 14 $y = (-3)^x$ 15. $y = -3^x$ 16. $y = 10^x$

x input	y output
1	
2	
3	
4	
5	

x input	y output
1	
2	
3	
4	
5	

x input	y output
1	
2	
3	
4	
5	

x input	y output
1	
2	
3	
4	
5	

17. If $f(n) = 5^n$, what is the value of $f(4)$?