

READY, SET, GO!

Name _____

Period _____

Date _____

READY

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

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

B) What is the value of $f(n - 1)$?
- A) When $f(n) = 17$, what is the value of n ?

B) What is the value of $f(n - 1)$?
- A) When $f(n) = 32$, what is the value of n ?

B) What is the value of $f(n + 1)$?
- A) When $f(n) = 2$, what is the value of n ?

B) What is the value of $f(n + 3)$?
- A) When $f(n) = 27$, what is the value of n ?

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

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

SET

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	3	4
value	10	13	16	

Find the value of the 50th term.

Explanation: _____

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 value of 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 value of 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: $now = previous\ term \cdot 2$

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: $now = previous\ term \cdot 2$

Find the value of the 7th term.

Explanation:

GO

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 $f(4)$?