



Identify first and second differences

1

1, 7, 13, 19, ?

A	B	C
21	29	20
D	E	F
25	28	27

2

23, 19, 15, 11, ?

A	B	C
7	10	11
D	E	F
2	12	4

3

Which completed table has a second difference that is zero?

A	x	y	1st Diff	2nd Diff
	1	-1		
	2	5	6	
	3	11	6	0
	4	17	6	0
	5	23	6	

B	x	y	1st Diff	2nd Diff
	2	1		
	3	-2	-3	
	4	-4	-2	1
	5	-10	-6	-4
	6	-15	-5	1

4

Complete the second differences. Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
-1	0		
0	1	1	
1	4	3	
2	5	1	
3	7	2	

A Linear B Neither C Quadratic

5

Complete the first and second differences. Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
2	-4		
3	-2		
4	3		
5	11		
6	22		

A Quadratic B Neither C Linear



Identify first and second differences

6

Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
0	-3		
1	-6	-3	0
2	-9	-3	0
3	-12	-3	-2
4	-17	-5	

A Quadratic

B Neither

C Linear

7

Complete the first and second differences. Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
-2	3		
-1	1		
0	-2		
1	-6		
2	-11		

A Linear

B Neither

C Quadratic

8

Which completed table shows a neither linear nor quadratic function?

A

x	y	1st Diff	2nd Diff
3	-6		
4	-8	-2	-3
5	-13	-5	-3
6	-21	-8	-3
7	-32	-11	

B

x	y	1st Diff	2nd Diff
1	0		
2	-1	-1	-2
3	-4	-3	1
4	-6	-2	3
5	-5	1	

9

Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
2	-3		
3	-3	0	-2
4	-5	-2	-2
5	-9	-4	-2
6	-15	-6	

A Neither

B Linear

C Quadratic

10

Complete the first and second differences. Is the function linear, quadratic, or neither?

x	y	1st Diff	2nd Diff
1	8		
2	11		
3	14		
4	17		
5	20		

A Quadratic

B Neither

C Linear