In each set of three functions, one will be linear, one will be exponential, and one will be quadratic. Determine whether the table represents a linear, quadratic, or exponential function by completing the table to find the first and second difference for each function. Then, find the y-intercept of each function by backing up the table.

1a.

x	$f(x)$	1st difference	2nd difference
0			
1			
2			
3			
4			
5			
6	64		
7	128		
8	256		
9	512		
10	1024		

1b.

x	$f(x)$	1st difference	2nd difference
0			
1			
2			
3			
4			
5			
6	36		
7	49		
8	64		
9	81		
10	100		

1c.

x	$f(x)$	1st difference	2nd difference
0			
1			
2			
3			
4			
5			
6	11		
7	13		
8	15		
9	17		
10	19		

2a.

x	$f(x)$	1st difference	2nd difference
-2	-17		
-1	-12		
0	-7		
1	-2		
2	3		

2c.

x	$f(x)$	1st difference	2nd difference
-2	9		
-1	6		
0	5		
1	6		
2	9		

2b.

x	$f(x)$	1st difference	2nd difference
-2	1/25		
-1	1/5		
0	1		
1	5		
2	25		