Directions: For 1 – 6, selected values for several functions are given in the tables below. For each table of values, determine if the function could be linear, quadratic, or neither.

1.

x	$f(x)$
1	1
4	2
7	4
10	8
13	16

2.

x	$g(x)$
1	-2
2	-5
3	-5
4	-2
5	4

3.

x	$h(x)$
0	0
2	3
4	7
6	12
8	18

4.

x	$k(x)$
0	2
1	3
4	6
9	11
16	18

5.

x	$m(x)$
1.2	12.5
1.6	9
2.0	5.5
2.4	2
2.8	-1.5

6.

r	$k(r)$
1	2
3	3
5	6
7	7
9	10

Directions: For 7 – 9, the tables below give values of several quadratic functions at selected values of x. For each function, find the value of the constant k in the table.

7.

x	$p(x)$
0	0
2	5
4	8
6	9
8	k

8.

x	$m(x)$
1	4
5	-1
9	-4
13	k
17	-4

9.

x	$f(x)$
2.1	-2
2.5	k
2.9	12
3.3	16
3.7	18

Directions: For 10 – 12, the tables below give values of several linear functions at selected values of x. For each function, find the value of the constant k in the table.

10.

x	$g(x)$
1	-5
3	-1
5	k
7	7

11.

x	$h(x)$
0	7
1	5
2	k
3	1

12.

x	$j(x)$
0	1
2	k
5	16
7	22

Directions: For 13 – 18, selected values for several functions are shown below. The graph of each function is known to be concave up or concave down. For each problem, use the data in the tables to determine if the given function is concave up or concave down.

13.

x	$f(x)$
2	1
2.5	3
3	6
3.5	13
4	23

14.

t	$g(t)$
-4	0
0	8
4	13
8	15
12	16

15.

x	$h(x)$
0	5
1	11
2	14
3	15
4	12

16.

x	$k(x)$
1	0
2	-6
3	-10
4	-11
5	-11

17.

x	$p(x)$
11	18
15	10
19	5
23	3
27	2

18.

t	$j(t)$
2	22
2.3	20
2.6	15
2.9	8
3.2	0