

Math 8 F.3 Quiz

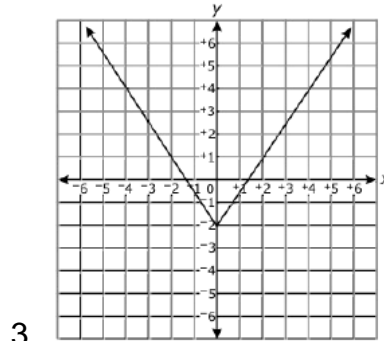
Decide whether the following tables, graphs, and equations are linear or nonlinear. Write linear or nonlinear in each blank.

1.

x	y
6	4
4	2
2	0
0	2
-2	4

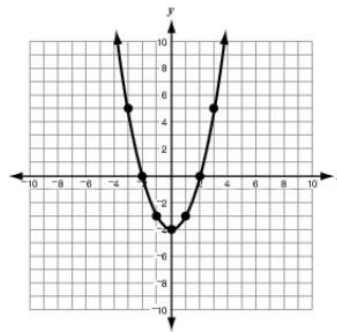
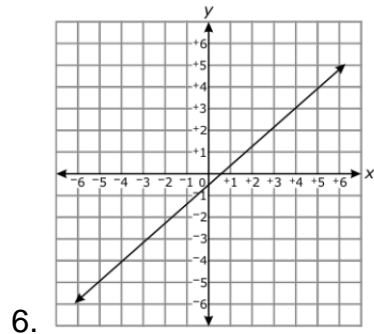
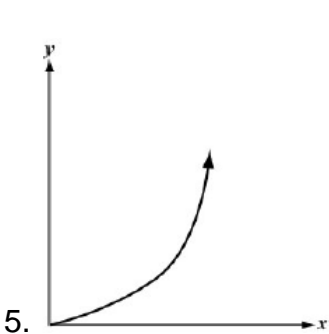
2.

x	y
1	0
2	3
3	6
4	9



4.

x	2	5	8	11
y	-4	-2	0	2



8.

x	$f(x)$
1	1
2	4
3	9
4	16

9. $y = \frac{2}{x} + 3$

10. $y = 5$

11. $y = \frac{-x}{3} + 4$

12. $y = x^2 + 1$

13. Which set of points are linear?

- A. $(-1, -2), (0, 6), (1, 2)$ B. $(0, -4), (1, -1), (3, 5)$ C. $(2, 3), (4, 2), (6, 3)$ D. $(1, 1), (4, 16), (6, 36)$

14. Which function is non-linear?

A.

x	y
0	0
2	4
3	9

B.

x	y
2	1
4	3
6	5

C. $y = 4$

D. $2x - 4y = 15$

15. Which relationship represents a linear function?

- A. Temperature outside and amount of people wearing red shoes.
- B. A person's hair color and how many siblings they have.
- C. The number of shoes Mr. Gallimore owns and what's for lunch today.
- D. Distance a car travels over time at 60 miles per hour.

16.

Which function is linear?

A. $y = \frac{1}{x} - 8$

B. $y = x - 8$

C. $y = \sqrt{x} - 8$

D. $y = x^2 - 8$

17.

Which represents a linear function?

A. $y = \frac{5}{x}$

B. $y = x^2 - 3$

C. $y = |x - 1|$

D. $y = \frac{1}{2}x + 2$