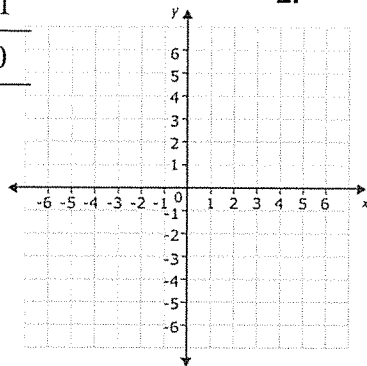


6.4 Practice AB

Graph the data in the table. Decide whether the graph is *linear* or *nonlinear*.

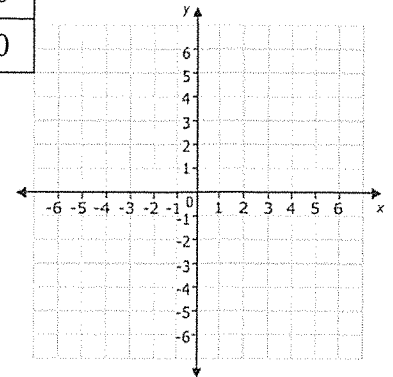
1.

x	0	1	2	-1
y	2	4	6	0



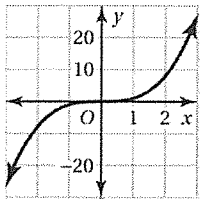
2.

x	1	2	3	0
y	1	3	6	0

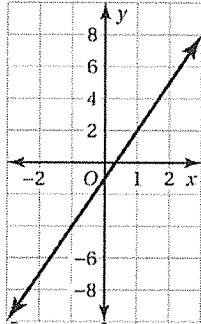


Does the table or graph represent a *linear* or *nonlinear* function? Explain.

3.



4.



5.

x	3	5	7	9
y	5	3	0	3

6.

x	4	7	10	13
y	-2	0	2	4

7. The table shows the area A (in square centimeters) of a circle with radius r centimeters. Does the table represent a *linear* or *nonlinear* function? Explain.

Radius, r	1	2	3	4	5	6	7	8
Area, A	π	4π	9π	16π	25π	36π	49π	64π

8. The table shows the cost y (in dollars) of x ounces of cereal.

a. What is a missing y -value that makes the table represent a nonlinear function?

Ounces, x	8	12	16
Cost, y	?	2.5	3.5

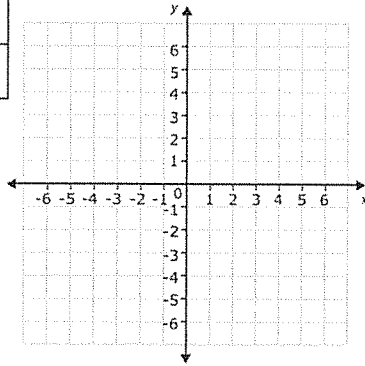
b. What is the missing y -value that makes the table represent a linear function?

c. Write a linear function that represents the cost y of x ounces of cereal. Interpret the slope.

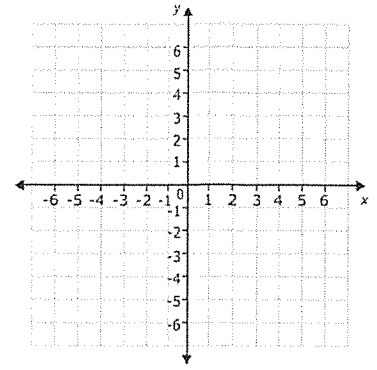
Graph the data in the table. Decide whether the graph is *linear* or *nonlinear*.

9.

x	4	3	2	1
y	-3	1	5	9

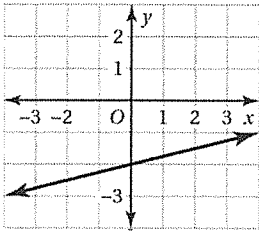


x	-4	-1	2	5
y	-3	0	3	6

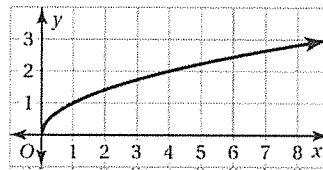


Does the graph or equation represent a *linear* or *nonlinear* function? Explain.

11.



12.



13. The table shows the profit P (in dollars) of selling x pairs of flip flops. Does the table represent a *linear* or *nonlinear* function? Explain.

Flip Flops, x	1	2	3	4	5
Profit, P	4	8	12	16	20

14. The table shows the commission y (in dollars) of selling x cell phone plans.

Cell Phone Plans, x	1	2	3	4
Commission, y	100	150	250	400

a. Does the table represent a *linear* or *nonlinear* function? Explain.

b. Based on the pattern in the table, what is the commission of selling 5 cell phone plans?