

Algebra IA  
Chapter 4 Lesson 2  
Linear and Nonlinear

Determine which of the graphs, tables, or ordered pairs are linear. State linear or non-linear.

1.

<b>x</b>	0	5	10	15
<b>y</b>	2	4	6	8

2.

<b>x</b>	3	4	5	6
<b>y</b>	5	7	10	14

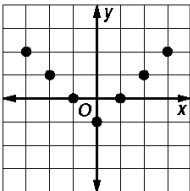
3.

<b>x</b>	0	4	8	12
<b>y</b>	-4	-1	3	8

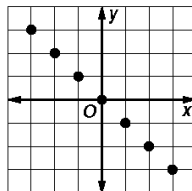
4.

<b>x</b>	1	4	7	10
<b>y</b>	1	3	5	7

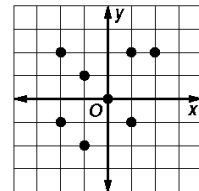
5.



6.



7.



8.

$\{(-4, -2), (-5, 0), (-6, 3), (-8, 7)\}$

9.

$\{(-1, 5), (0, 4), (1, 3), (2, 2)\}$

10.

<b>x</b>	-5	-3	-1	1
<b>y</b>	-3	-2	0	3

11.

<b>x</b>	-3	-1	1	3
<b>y</b>	6	4	2	0

12.  $\{(0, 0), (0.5, -0.5), (1, -1), (1.5, -1.5)\}$

13.  $\{(-4, 3), (-5, 2.75), (-6, 2.25), (-7, 1.5)\}$

14.

<b>x</b>	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$
<b>y</b>	2	4	8	16

15.

<b>x</b>	$\frac{1}{3}$	$\frac{2}{3}$	1	$1\frac{1}{3}$
<b>y</b>	1	0	-1	-2

**Simplify each expression.**

16)  $-2 - a + 1 + 8a$

17)  $-4x - 9x$

18)  $x + 10 - 5x$

19)  $5v + 3 - 7$

**Solve each equation.**

20)  $20 + n = 19$

21)  $m - 1 = -16$

22)  $\frac{b}{11} = -2$

23)  $12n = -60$