Name: _____ Period: _____ Date: _____

Pre-Algebra | **Homework 13-3** | **Unit 13**

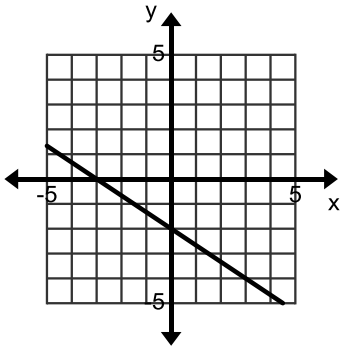
Linear and Non-Linear

Determine whether the following equations are linear or non-linear.

1. $y = \frac{1}{2}x + 6$
2. $y = |5x - 1|$
3. $y = \frac{x^2}{4} - 1$
4. $y = 2.4x^7 - 2$
5. $y = 2x$
6. $y = 3x^2 + 1$
7. $y = \frac{x}{2}$
8. $y = \frac{1}{4}x$
9. $y = |3x| + 5$
10. $y = -\frac{2}{3}x - 4$

Determine whether the following graphs are linear or non-linear.

11.



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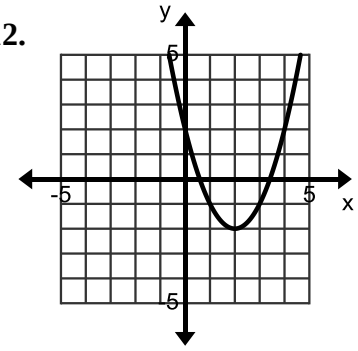

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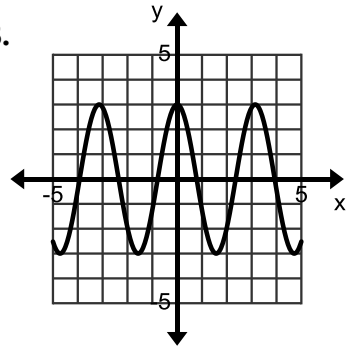

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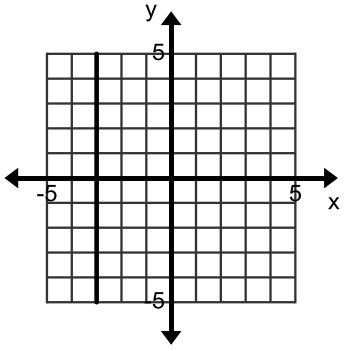

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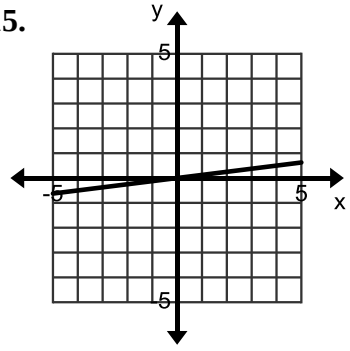

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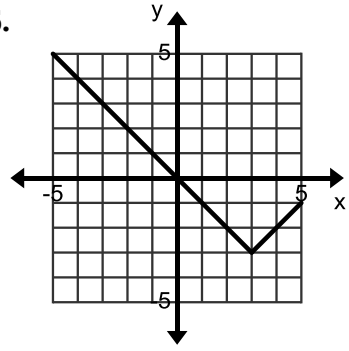

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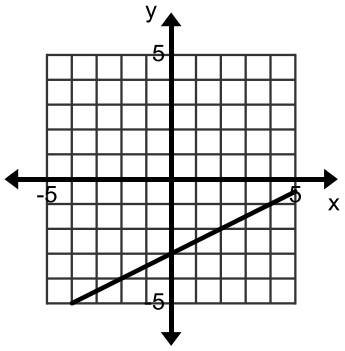

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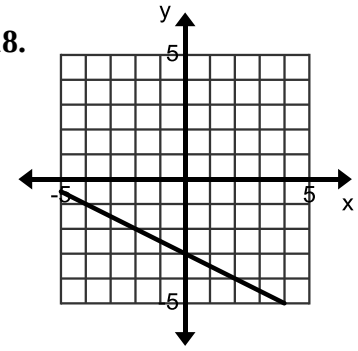

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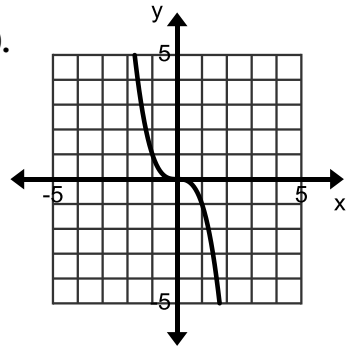

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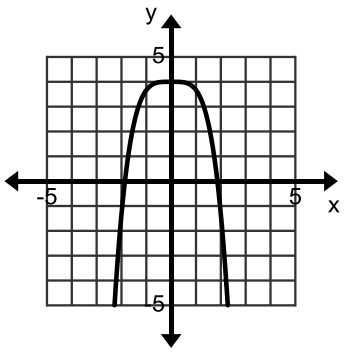


21. Determine which table matches the equation $y = x + 5$.

A

X	Y
-10	15
0	5
1	6

B

X	Y
-1	4
-8	3
-6	-1

C

X	Y
-2	3
-5	0
-3	2

D

X	Y
-9	-4
9	14
-4	1

22. Determine which table matches the equation $y = 3 - x$.

A

X	Y
1	2
0	3
-1	4

B

X	Y
2	1
-2	5
-3	0

C

X	Y
3	0
-4	1
5	-2

D

X	Y
4	-1
-5	8
6	3

Determine if each point is a solution to the equation, write YES (if it is a solution) or NO (if it is not).

23. $y = 3x$

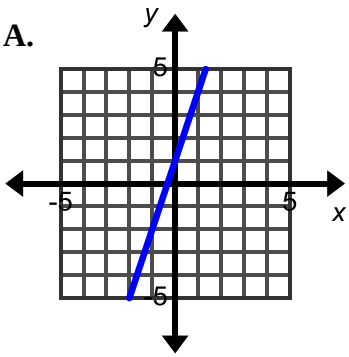
A. $(3, 1)$
B. $(2, 6)$
C. $(3, 6)$
D. $(2, 5)$

24. $y = 2x + 3$

A. $(0, 3)$
B. $(-1, 1)$
C. $(2, 3)$
D. $(1, 6)$

Multiple Choice:

25. Which of the following graphs contains a line with a solution of $(0, 2)$?

A.


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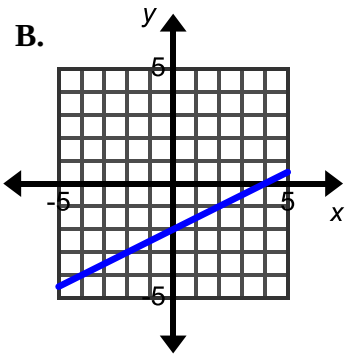
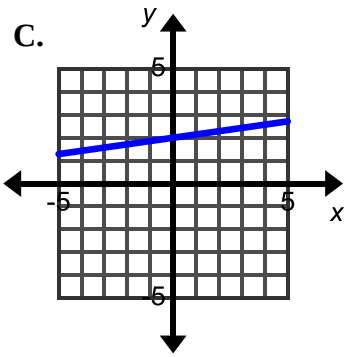
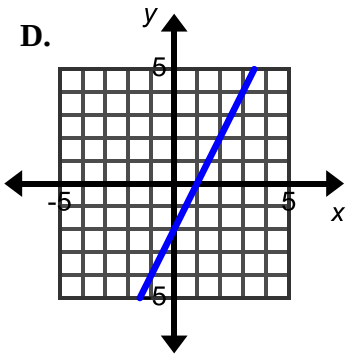
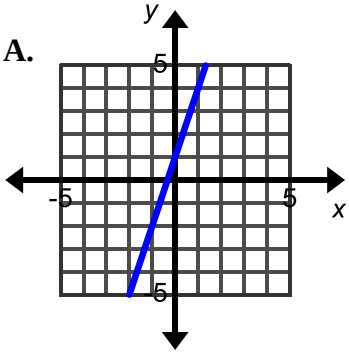
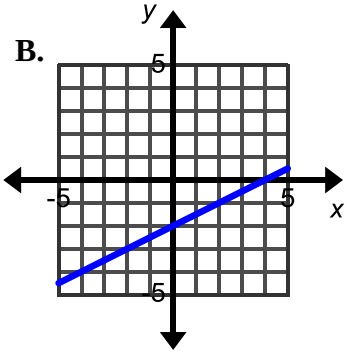


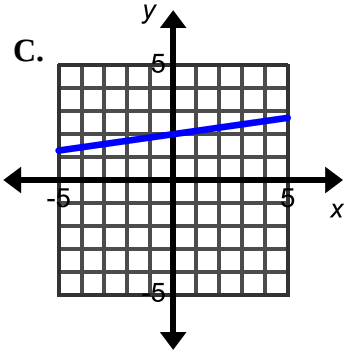
C.


D.


26. Which of the following graphs contains a line with a solution of $(2, -1)$?

A.


B.


C.


D.