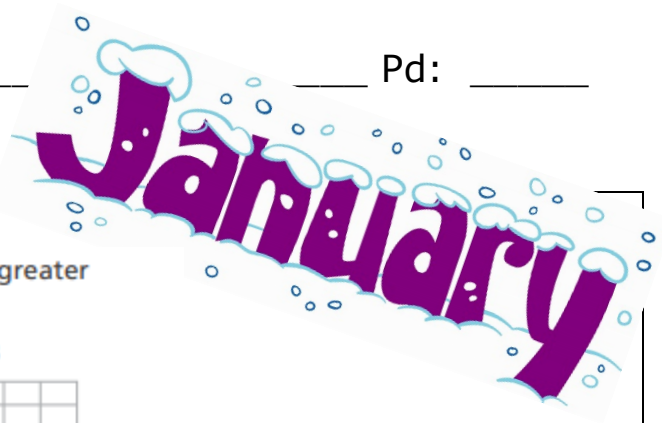


Homework - Math 8 Mrs. Shea



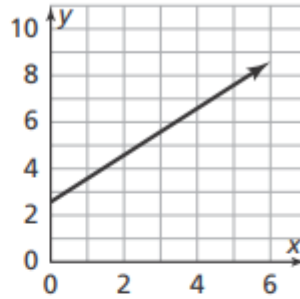
Monday Jan. 13th

1. Two linear functions are shown below. Which function has the greater rate of change?

Function A

x	y
4	32
8	44
12	56
16	68
20	80

Function B



2. Two linear functions are shown below. Which function has the greater initial value?

Function A

$$y = \frac{3}{4}x + 5$$

Function B

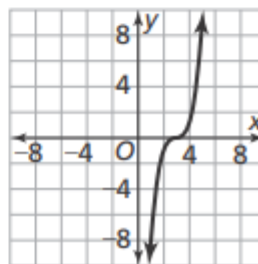
x	-2	0	2	4	6
y	5	8	11	14	17

3. Tell whether each function is *linear* or *nonlinear*.

Function A

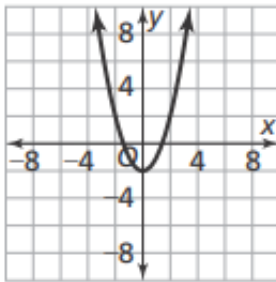
x	-2	1	2	3	4
y	3	0	-1	-2	-3

Function B

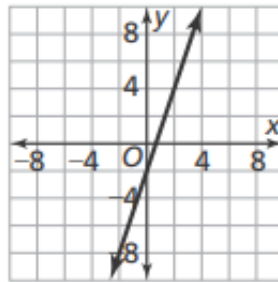


4. Decide whether each function is *linear* or *nonlinear* from its graph.

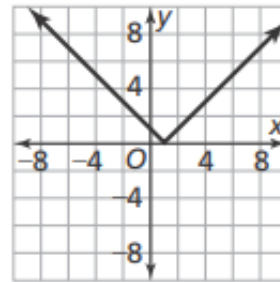
Function I



Function II



Function III



8. The equation $y = 4x + 60$ and the table each describe a linear function. Compare the properties of the functions. Select all that apply.

x	10	20	30	40
y	60	80	100	120

- The linear function described by the table has the greater rate of change.
- The linear function described by the equation has the greater rate of change.
- The rates of change are equal.
- The linear function described by the table has the greater initial value.
- The linear function described by the equation has the greater initial value.
- The initial values are equal.

9. Jeff saved \$500 from his summer job so he would have spending money during the school year. He withdraws \$12 from his account each week, so a linear function models his plan. Melissa made a similar plan. The table shows the results of her first five transactions. Compare the functions.

Melissa's Savings

Week	1	2	3	4	5
Balance	\$510	\$500	\$490	\$480	\$470

Wednesday Jan. 15th

1. Which linear function has the greatest initial value?
Which has the greatest rate of change?

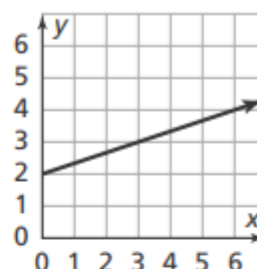
Function A

x	0	2	4	6
y	0	5	10	15

Function B

$$y = 3x - 1$$

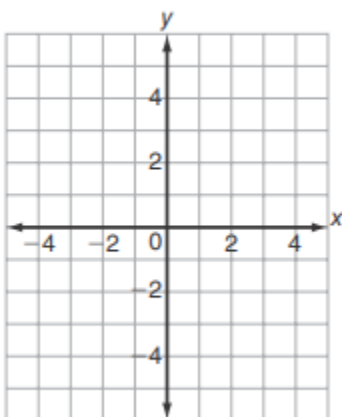
Function C



2. Tell whether each function is *linear* or *nonlinear*.

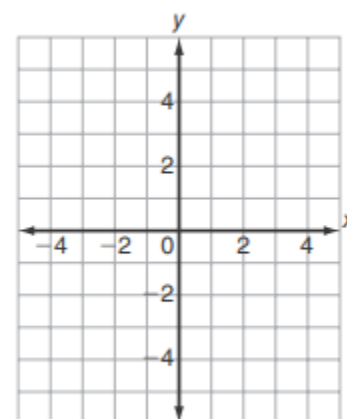
10. $y = -3x$

x	y
-1	
0	
1	

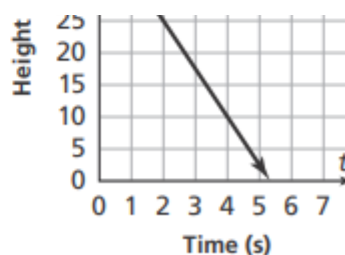


11. $y = 2 - x$

x	y
-2	
0	
3	



- The initial height of Elevator A is less than the initial height of Elevator B.
- Elevator A descends at a faster rate than Elevator B.
- Elevator A will reach the ground floor first.
- Elevator B will reach the ground floor before Elevator A.
- The change in height of both elevators can be represented by linear functions.



Thursday Jan. 16th

1. Which of the following represents a function?

A.

x	y
-3	0
-1	4
-1	8
3	12
5	16

B. (0,2), (-1,3), (-1,-3), (-2,-5)

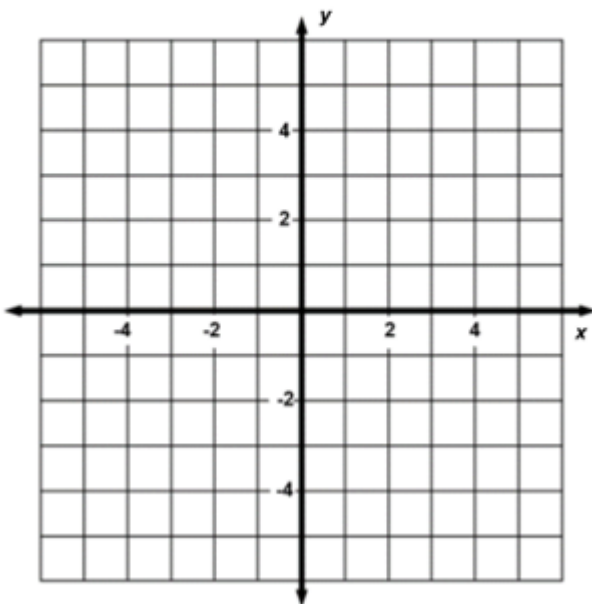
C.

x	y
-2	-9
-1	-7
0	-5
-1	-3
2	-1

D. (1,4), (2,4), (-3,7), (-4,9)

3. Graph the equation below.

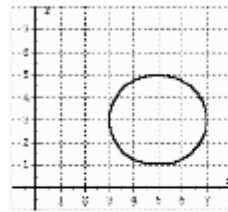
$$x - 3y = -6$$



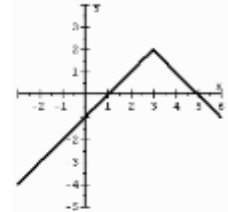
2. Which of the following graphs represent a function?

Select **all** that apply.

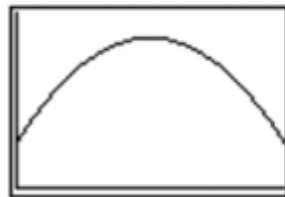
A.



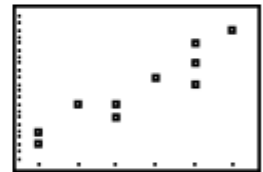
B.



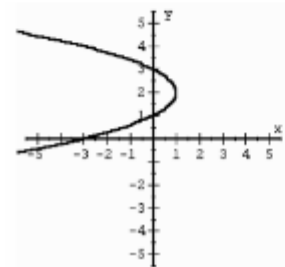
C.



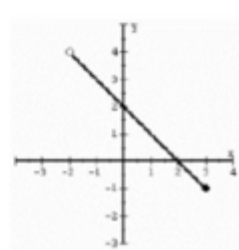
D.



E.



F.



January

