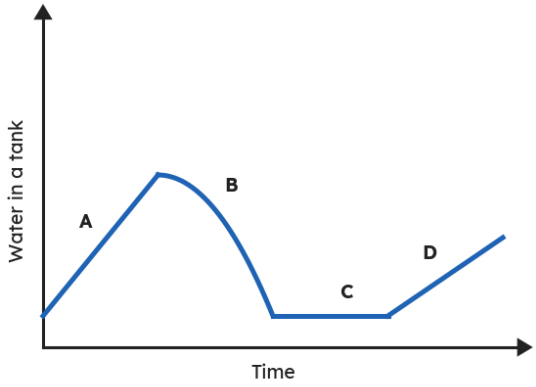
Name: _____ Date: _____

Linear And Nonlinear Functions - Medium

Is each function linear or nonlinear? For a graph, also tell where it increases, decreases, or stays constant.

1.



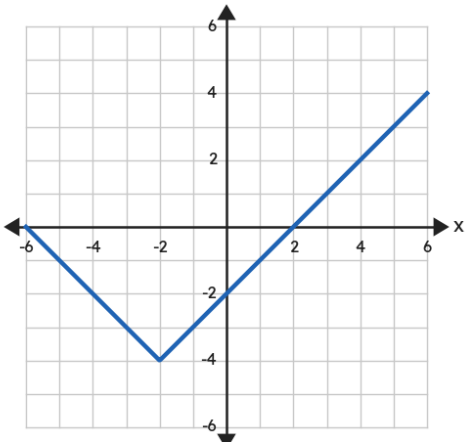
2.

x	0	1	2	3	4
y	4	8	16	32	64

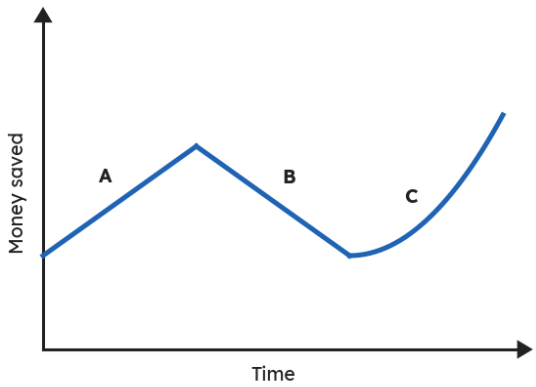
3.

x	0	1	2	3	4
y	2	4	8	16	32

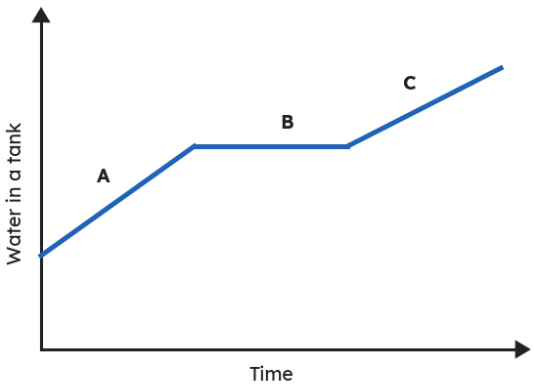
4.



5.



6.

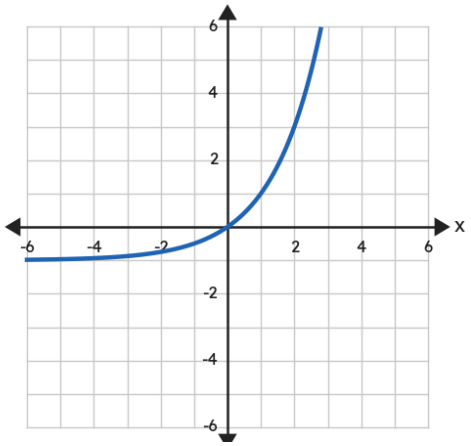


Name: _____ Date: _____

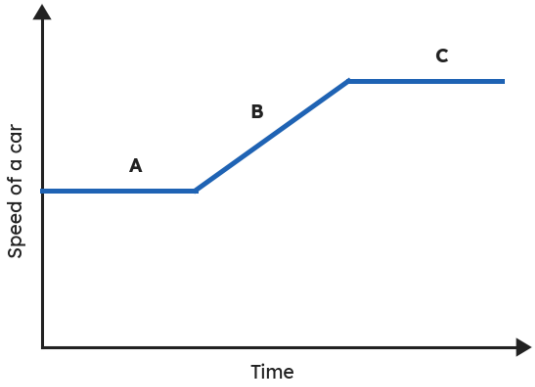
Linear And Nonlinear Functions - Medium

Is each function linear or nonlinear? For a graph, also tell where it increases, decreases, or stays constant.

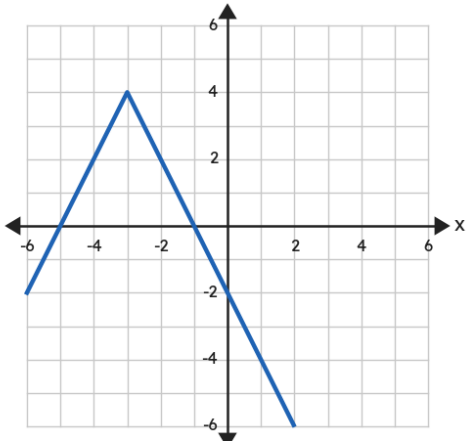
7.



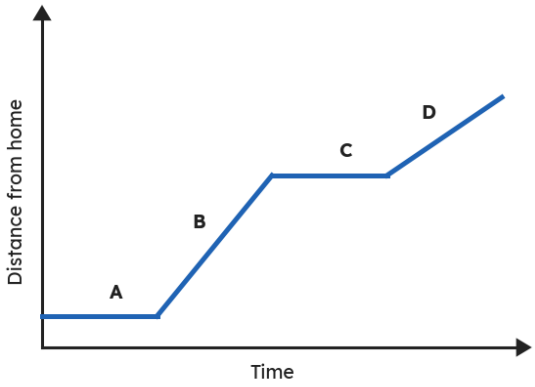
8.



9.



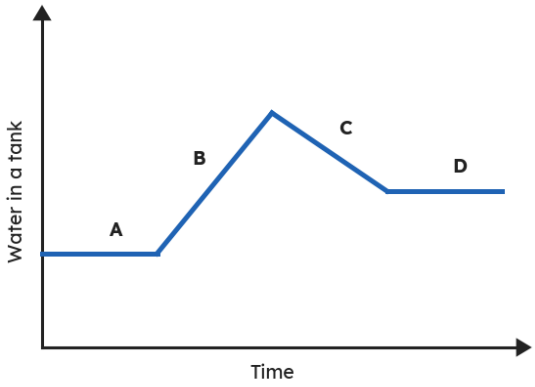
10.



11.

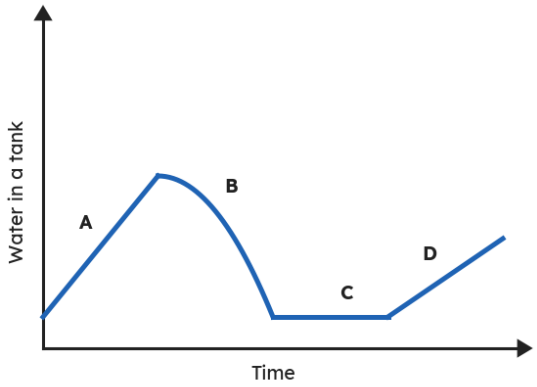
x	-1	1	3	5	7
y	0	0	-8	-24	-48

12.



Linear And Nonlinear Functions - Medium - Answer Key

1.



A: increasing; B: decreasing, nonlinear; C: constant; D: increasing

2.

x	0	1	2	3	4
y	4	8	16	32	64

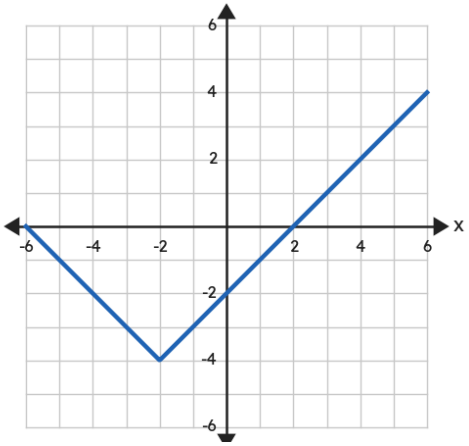
nonlinear (the change in y is not constant)

3.

x	0	1	2	3	4
y	2	4	8	16	32

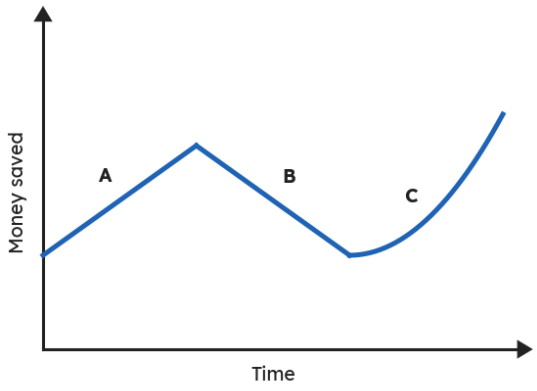
nonlinear (the change in y is not constant)

4.



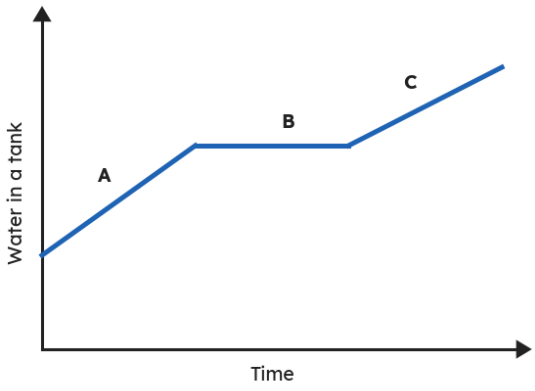
nonlinear; decreasing for x < -2, increasing for x > -2

5.



A: increasing; B: decreasing; C: increasing, nonlinear

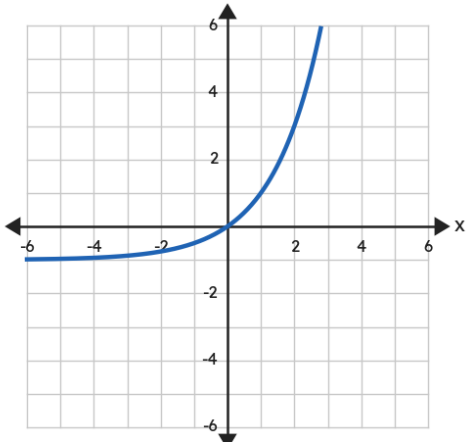
6.



A: increasing; B: constant; C: increasing

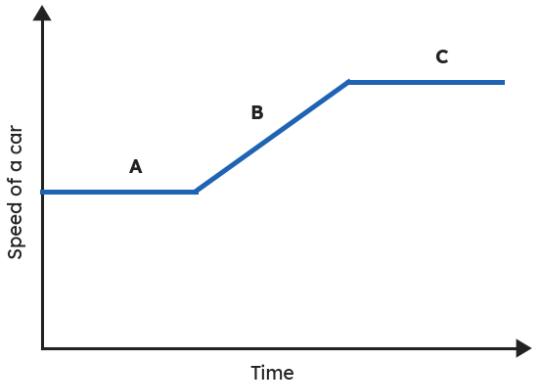
Linear And Nonlinear Functions - Medium - Answer Key

7.



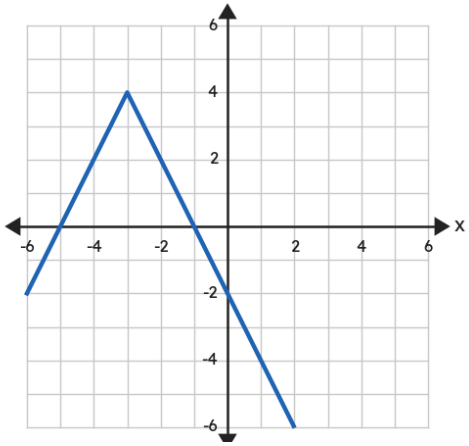
nonlinear; increasing for all x

8.



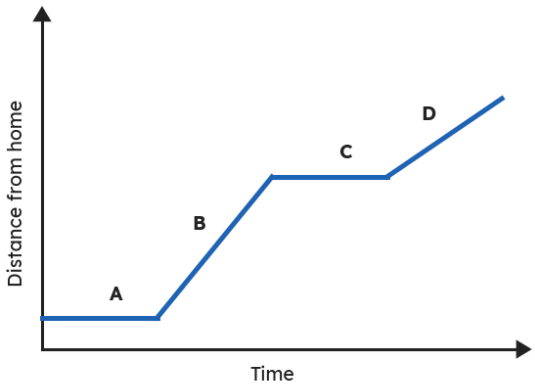
A: constant; B: increasing; C: constant

9.



nonlinear; increasing for x < -3, decreasing for x > -3

10.



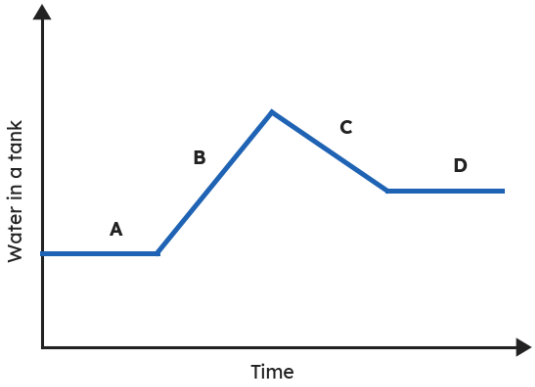
A: constant; B: increasing; C: constant; D: increasing

11.

x	-1	1	3	5	7
y	0	0	-8	-24	-48

nonlinear (the change in y is not constant)

12.



A: constant; B: increasing; C: decreasing; D: constant