

LT 11 Review: I can differentiate between linear and nonlinear functions.

1. Is the equation $y = 3x - 4$ linear or nonlinear? How do you know?
2. Is the equation $y = 3x^2 + 4x - 7$ linear or nonlinear? How do you know?

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

1 3.

x	0	1	2	3
y	4	8	12	16

4.

x	1	2	3	4
y	1	2	6	24

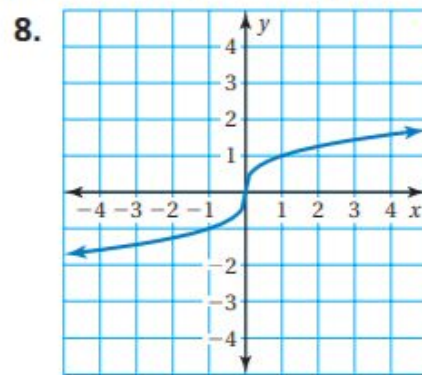
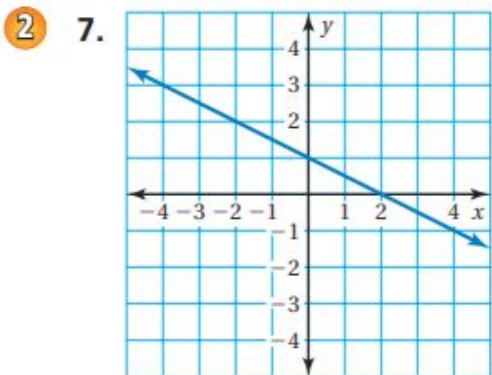
5.

x	6	5	4	3
y	21	15	10	6

6.

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

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



9.

x	5	11	17	23
y	7	11	15	19

10.

x	-3	-1	1	3
y	9	1	1	9

11. **VOLUME** The table shows the volume V (in cubic feet) of a cube with a side length of x feet. Does the table represent a linear or nonlinear function? Explain.

Side Length, x	1	2	3	4	5	6	7	8
Volume, V	1	8	27	64	125	216	343	512