Linear Function Practice (6.4)

1.) **WHICH ONE DOESN'T BELONG?** Which equation does *not* belong with the other three? Explain your reasoning.

$5y = 2x$ $\quad y = \frac{2}{5}x$ $\quad 10y = 4x$ $\quad 5xy = 2$

Determine whether each table or graph represents a linear or nonlinear function (circle one). If it is linear, write a linear function that relates x to y. If it is not linear, explain why.

2.)

x	0	1	2	3
y	4	8	12	16

Linear or Nonlinear

Equation or explanation:

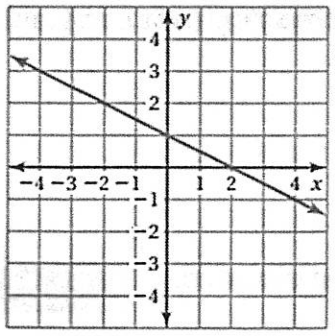
3.)

x	1	2	3	4
y	1	2	6	24

Linear or Nonlinear

Equation or explanation:

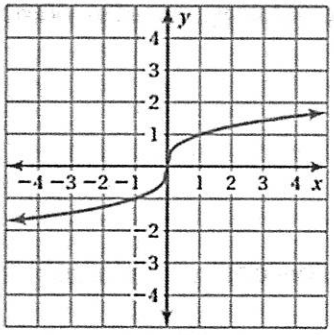
4.)



Linear or Nonlinear

Equation or explanation:

5.)



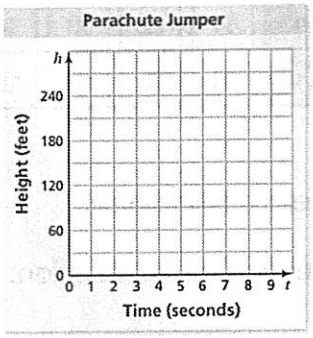
Linear or Nonlinear

Equation or explanation:

Graph the data in each table. Decide whether each graph is linear or nonlinear.

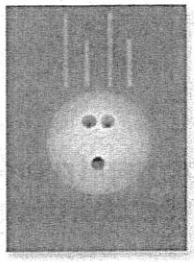
a. Falling parachute jumper

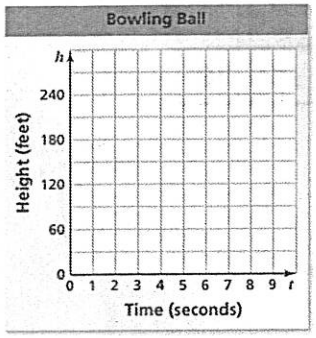
t	0	1	2	3	4
h	300	285	270	255	240



b. Falling bowling ball

t	0	1	2	3	4
h	300	284	236	156	44





Compare the two falling objects. Which one has an increasing (not constant) speed?

The table shows the cost y (in dollars) of x pounds of sunflower seeds.

Pounds, x	Cost, y
2	2.80
3	?
4	5.60

a. What is the missing y-value that makes the table represent a linear function?

b. Write a linear function that represents the cost y of x pounds of seeds.

c. Interpret the slope of the function.