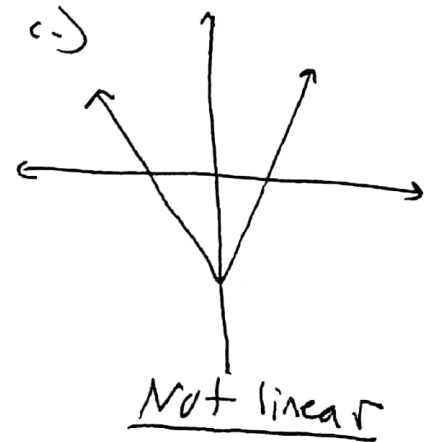
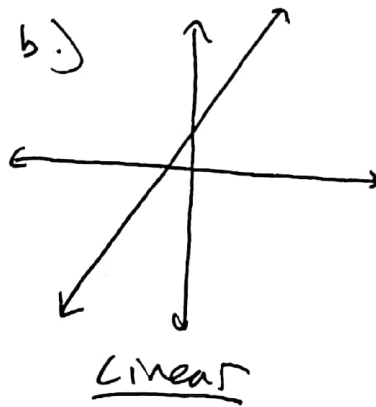
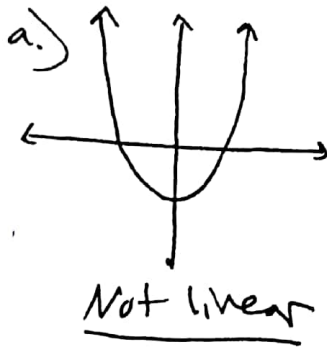


Objective: To identify whether or not a function is linear by a graph, table, equation, or ordered pairs.

1.) Identifying Linear Functions by a graph.

• linear functions always graph into straight lines with a constant slope.



2.) Identifying Linear Function from a table.

• tables of linear functions have a pattern that is constant for domain and range.

a.)

X	Y
3	36
6	30
9	24
12	18

$6-3=3$
 $9-6=3$
 $12-9=3$

linear

b.)

X	Y
2	9
3	20
5	35

$3-2=1$
 $5-3=2$

Not linear

✱ subtract consecutive values in x and y columns.

3. Identifying Linear functions from an equation.

- Linear functions can be written in the form

$$\boxed{y = mx + b} \rightarrow \text{slope-intercept}$$

- All variables are raised to the 1st power
- variables cannot be in the denominator
- you can't multiply to 2 variables.

a.) $y = \frac{2}{x}$
Not

b.) $y = \sqrt{x}$
Not

c.) $y = 3^x$
Not

d.) $y = 6x - 1$
Yes

e.) $y = 5(x+3)$
 $y = 5x + 15$ Yes

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