

Intro to Functions: Practice

1. What is the difference between the independent variable and the dependent variable?

2. Consider the following data:

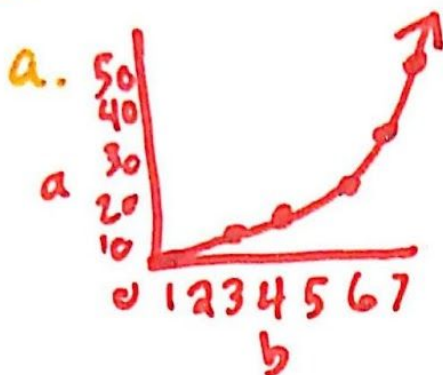
# of stuffed animals bought (x) (bears)	# of stuffing used per bear (y)
0	500
1	$499\frac{3}{4}$
2	$499\frac{1}{2}$
3	$497\frac{3}{4}$

($\frac{3}{4}$ of a pound per bear bought)

Write a function using this data:

Intro to Functions: Practice Cont.

3. Is this a linear graph?

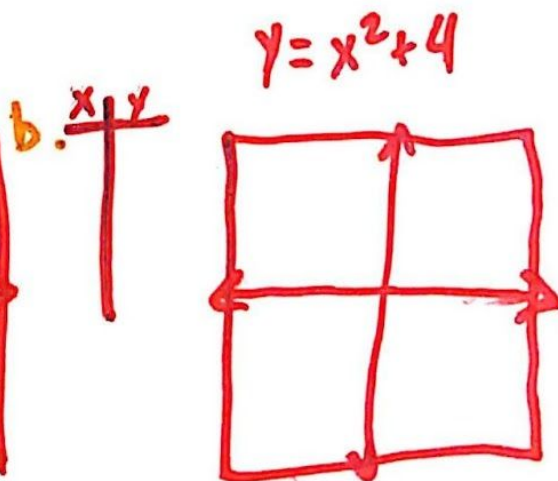
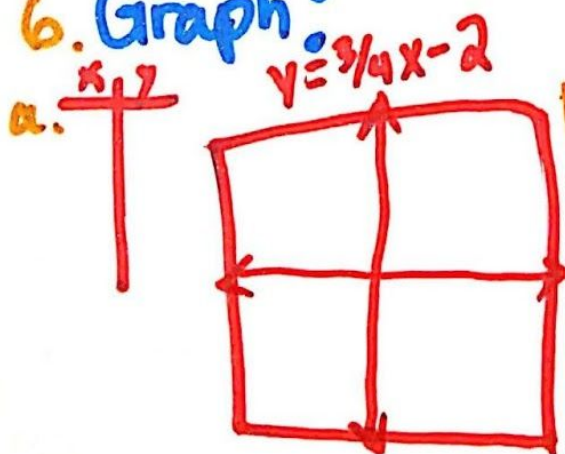


4. linear = _____

Non-linear = Not a _____

5. If a function has an exponent, absolute value sign, or square root, can it be linear?

6. Graph:



Intro to Functions: Practice Cont.

7. Write the functions:

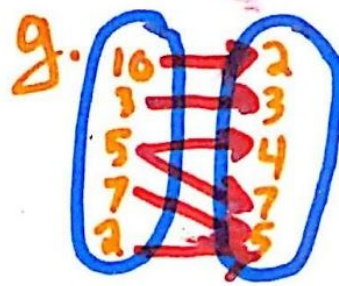
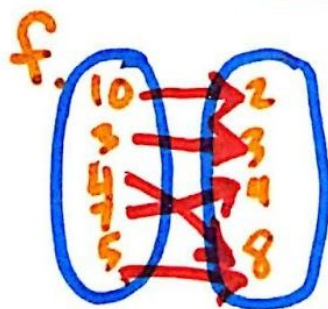
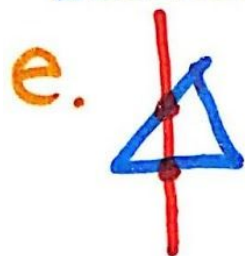
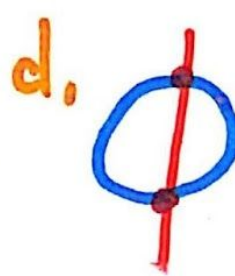
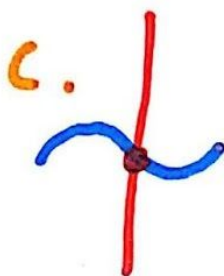
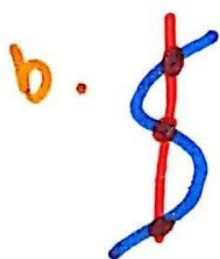
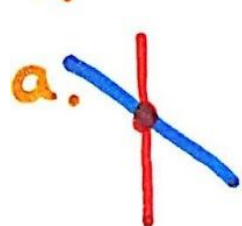
a. y is 8 less than the product of 3 and x :

b. d is 7 more than $\frac{3}{4}$ of b :

c. h is the sum of the product of 6 and x and $\frac{1}{2}$ of k :

8. Domain is about — values.
range is about — values.

9. Is it a function?



Intro to functions: Practice Answers

1. IV = input DV = output

2. $y = 500 - 3/4x$

3. a. no b. yes

4. linear = line
non-linear = not a line

5. No!

6. a.



b.



7. a. $y = 3x - 8$

b. $d = 7 + 3/4b$

c. $h = 6x + 1/2K$

8. $\frac{x}{y}$

9. a. yes

b. no

c. yes

d. no

e. no

f. yes

g. no