April 9th

NAME_____

PA.A.1.1

For each of the following relations tell whether the set is a function.

(1) Input Output

A ⟍ 75
B ⤬ 73
C → 68
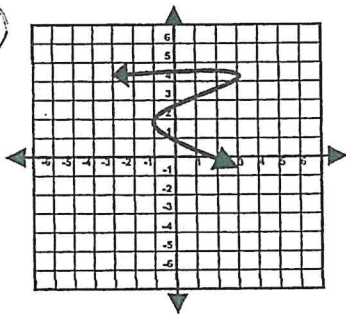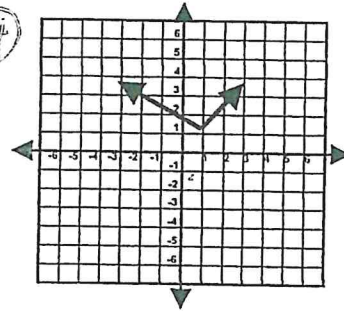D → 65

(2) Input Output

1 → 5
2 → 6
3 ⤬ 7
4 ⤬ 8

Determine whether or not each graph represents a function.

(3)

(4)

Determine whether the ordered pairs represent a function.

(5) $\{(0,3),(1,5),(2,3),(3,1),(4,0)\}$

(6) $\{(3,-1),(2,-5),(5,5),(3,-5),(4,6)\}$

Determine whether or not each data set represents a function.

(7)

x	y
0	2
1	3
3	5
5	7

(8)

x	y
-3	4
2	7
2	6
4	9

9) Arial is a beautician. She charges different rates for different lengths of hair. What are the dependent and independent variables?

10) Chase needs to get a good grade on his next Algebra test. He must study a lot in order to get a good grade? What are the dependent and independent variables?

A function pairs an input value with exactly one output value.

April 9th

NAME _Key_

PA.A.1.1

For each of the following relations tell whether the set is a function.
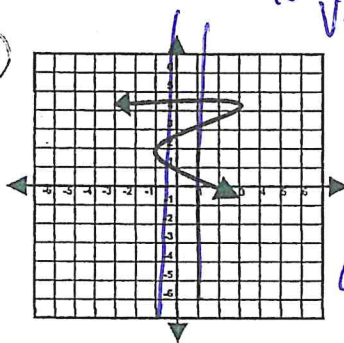
① Input Output

A ↘ 75   *yes*
B ✗ 73   *function*
C → 68
D → 65

② Input Output

1 → 5   *yes*
2 → 6   *function*
3 ✗ 7
4 ✗ 8

Determine whether or not each graph represents a function.

"vertical line test"

③

NOT a function

④

yes – function

"who is misbehaving?"

Determine whether the ordered pairs represent a function.

⑤ {(0,3),(1,5),(2,3),(3,1),(4,0)} *yes*

⑥ {(3,-1),(2,-5),(5,5),(3,-5),(4,6)} *no*

Determine whether or not each data set represents a function.

⑦

x	y
0	2
1	3
3	5
5	7

yes

⑧

x	y
-3	4
2	7
2	6
4	9

no

mathantics has a good video
Algebra Basics: What are functions?

9

Arial is a beautician. She charges different rates for different lengths of hair. What are the dependent and independent variables?

Length of hair represents the Independent
Rate (Charge) represents the Dependent

10

Chase needs to get a good grade on his next Algebra test. He must study a lot in order to get a good grade? What are the dependent and independent variables?

Studying represents the Independent
the grade represents the Dependent

Learn Zillion has a great video on this —
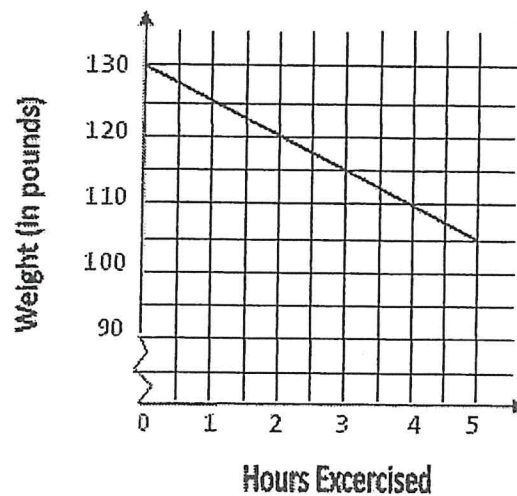" Identify independent and dependent variables"

(learnzillion.com)

April 9th.

NAME_____

PA.A.1.2

Kendall weighs 130 pounds. She goes to ABC Gym and starts exercising. The graph below shows the number of hours she exercised and the pounds she lost.

Kendall's Weight

Hours Excercised

1. What does the y-intercept represent?

2. What is the ratio of the slope of the line?

3. How many pounds had Kendall lost after 2 hours of exercise?

4. Is the slope negative or positive?

(5)

A furnace technician charges $20 per hour and a one-time service charge of $30. Which equation represents the total charge (y) for working x hours?

A $y = 20x + 30$

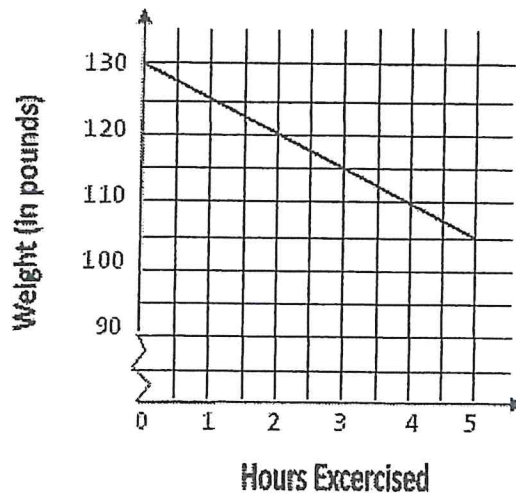B $y = 30x + 20$

C $y = 20(x - 30)$

D $y = 20(x + 30)$

April 9th

NAME_*Kay*_

PA.A.1.2

Kendall weighs 130 pounds. She goes to ABC Gym and starts exercising. The graph below shows the number of hours she exercised and the pounds she lost.

Kendall's Weight

Weight (in pounds)

Hours Excercised

1. What does the y-intercept represent? *The beginning weight or the weight with no exercise (130 lbs)*

change in y-values What is the ratio of the slope of the line? *weight*
change in x-values   *hours exercised*

3. How many pounds had Kendall lost after 2 hours of exercise?

10 lbs

4. Is the slope negative or positive?

negative

Maltz 2017

(5)

A furnace technician charges $20 per hour and a one-time service charge of $30. Which equation represents the total charge (*y*) for working *x* hours?

A $y = 20x + 30$

B $y = 30x + 20$

C $y = 20(x - 30)$

D $y = 20(x + 30)$

ask yourself – what varies?
what is constant?