Comments Assignment 4

Tue 27 Nov 2018

p24. Ex 2)

$f(0) = 0$

$f(1) = 60 = 1 \cdot 60$

$f(2) = 120 = 2 \cdot 10$

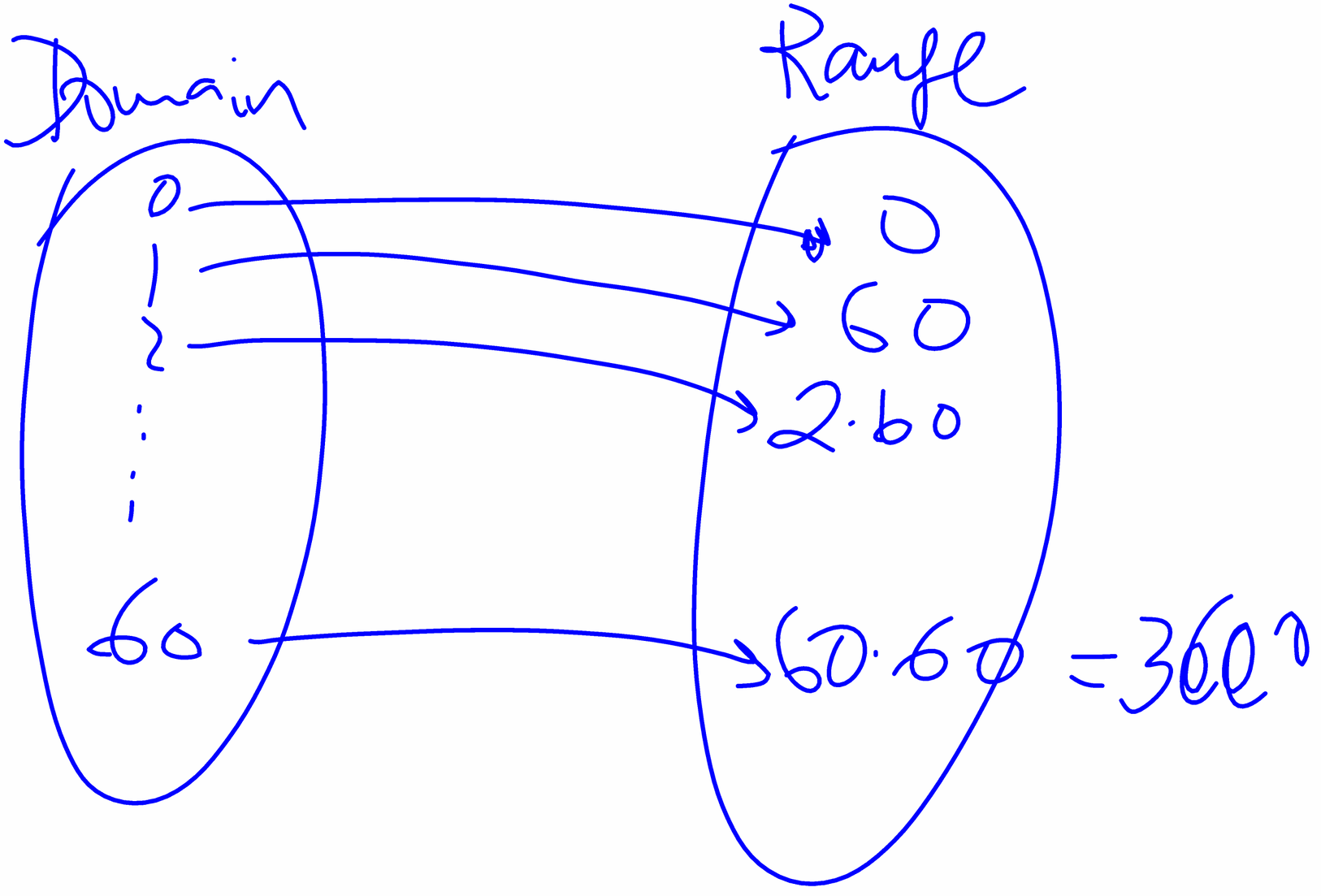
$f(3) = 180 = 3 \cdot 60$

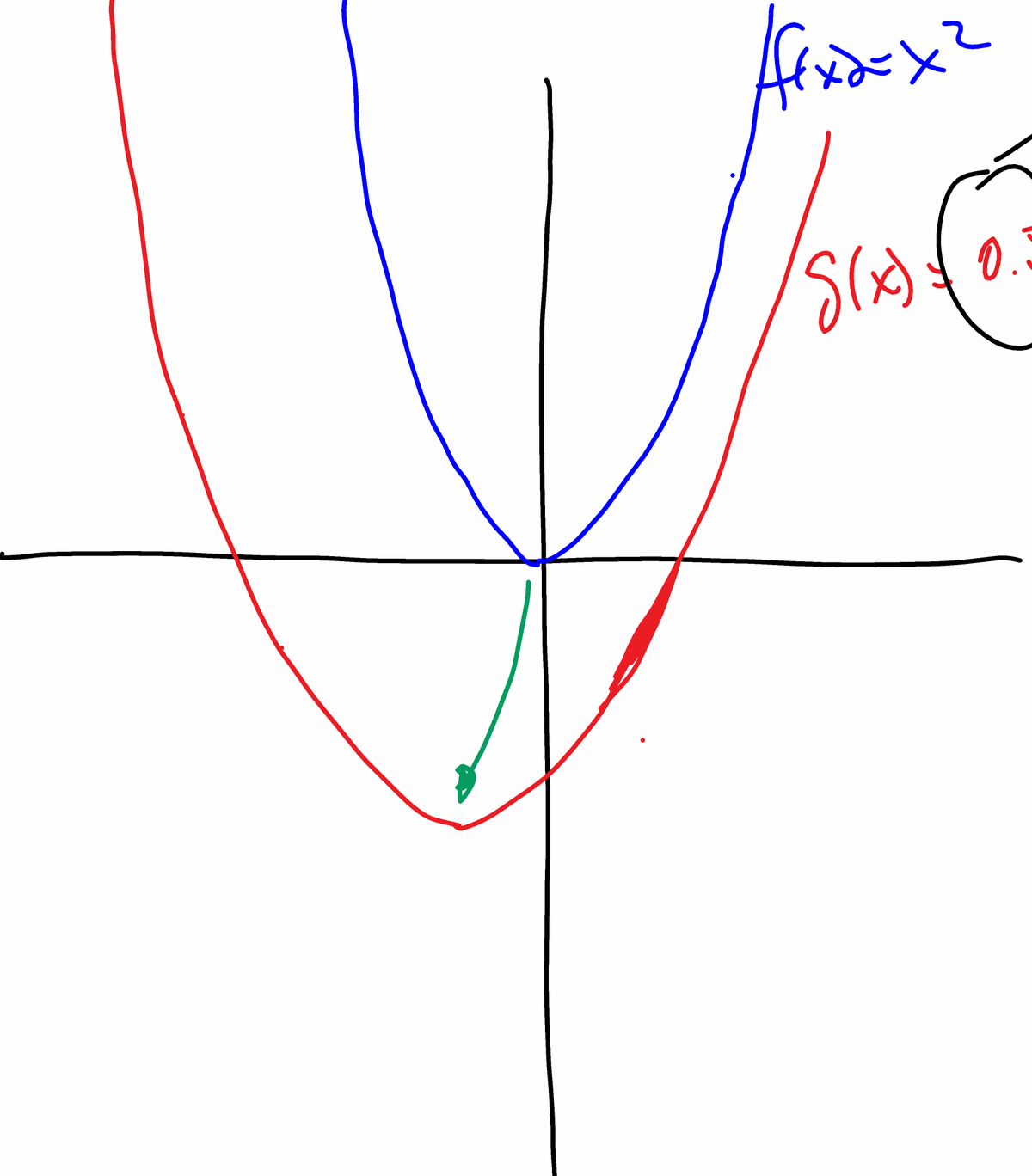
$f(4) = 240 = 4 \cdot 60$

$f(5) = \quad = 5 \cdot 60$

$f(137) = \quad = 137 \cdot 60$

$f(x) = x \cdot 60 = 60 \cdot x$


Domain
Range
0
1
2
60
0
60
2·60
60·60
= 360°



$g(x) = 0.5(x+1)^2 - 3$

0.5 makes $g(x)$ to grow "slower" than $f(x)$

Hence $g(x)$ is wider!

1) The vertex of $g(x)$ seems to have been translated ↙

2) $g(x)$ is "wider":

I) got to vertex

II) move 2 steps to → right

III) Calculate how much it grows up (2)

IV) Compare with $f(x)$ (4)

Examples

1) $h(x) = 2(x-4)^2$. Compare to the basic quadratic $f(x)=x^2$ and explain the transformations needed to go from $f(x)$ to $h(x)$

a) Plot it with Geogebra

b) Is there a translation? Yes. To the right 4 units
The vertex of $h(x)$ is $(4,0)$ instead of $(0,0)$

c) Is there a DILATION? Yes because $a \neq 1$

d) Is it stretching or compression? It's narrowing (= Compressing)

"Stretching" ~ "widening" ~ "slower growth"

"Compressing" ~ "narrowing" ~ "faster growth"