

## In class work 1, Fall 2022

Homework 1 has questions 1 through 4 with a total of 15 points. Digitize your work and submit it to Canvas. This assignment is due *Wednesday 24 13:10* PM.

5 1. Find the *natural domain* of the function  $F$  whose formula is  $F(x) = \frac{1}{5 + \frac{1}{x}}$

5 2. Use desmos to graph  $y = \frac{1}{5 + \frac{1}{x}}$ . As best you can, reproduce the graph here. Also, use the graph to determine  $\text{range}(F)$ .

3. Define functions  $F(x) = x^2 - 1$  and  $G(x) = 1 - x$ . Find the numerical values of

(a)  $(F + G)(4) =$

(b)  $(FG)(4) =$

(c)  $(F \circ G)(4) =$

(d)  $(G \circ F)(4) =$

- 5 4. Show below is a graph of a function  $Q$ . Given that the graph of  $Q$  is a translation of the graph of  $y = |x|$ , what is the formula for  $Q$ ?

